No.01

Oki Data CONFIDENTIAL

C5510MFP/C5540MFP
Maintenance Manual

[Rev. 1]

✓	ODA		China		Japan
✓	OEL		Korea		
✓	AOS		Taiwan		

Related drawings

Drawing No.	Name
42897301TL	C5510MPF/C5540MPF Disassembly for Maintenance
42897301TR	C5510MPF/C5540MPF RSPL

BOM		Use for		Certification Body	
Rev	Date	DCO No.	Contents	Design	Approval

Approval Hideki Enomoto	Design Hidenori Ueda	Name C5510MPF/C5540MPF Maintenance Manual	
Check Hidenori Ueda			
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Preface

This maintenance manual describes maintenance methods in filed of OKI5660SP/5860SP targeting service personnel.

Names of components that require procurement, such as printed circuit board, are assigned with numbers.

(Example) ABCD-3 Printed circuit board

The number is assigned to specify type of the component and is not the manufacturing version of the printed circuit board and so on.

In the body of this manual except the components list, numbers are not assigned to components unless otherwise necessary.

Regarding the methods for handling and operating the device, please refer to "Instruction Manual."

Attention!

- Reprinting this document entirely or partially without permission is prohibited.
- Contents of this document are subject to change without notice because of remodeling of the device or modification of descriptions.

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1. INTRODUCTION

1.1 Service Notes
1.2 General Description
1.3 Features

This manual is intended to be used by the maintenance engineers. It describes areas to be maintained, the detailed installation steps, the component replacement procedures, and the main trouble shooting guides.

Before serving the unit, read this manual thoroughly to obtain comprehensive knowledge about OKI C5510MFP/C5540MFP.

1.1 Service Notes

(1) Before trying to disassemble the C5510MFP/C5540MFP, make sure the power supply cord of the C5510MFP/C5540MFP is disconnected from the power outlet. Under any circumstance, do not remove from or install the PWBs or connectors onto the C5510MFP/C5540MFP with the power switch turned ON.

(2) Be careful not to drop small parts or screws inside the unit when disassembling and reassembling it. If left inside, they might cause the malfunction of the unit.

(3) Do not pull the connector cable when disconnecting it. Hold the connector.

(4) When carrying PWBs or the scanning head unit, put it in an anti-static bag.

(5) Keep the document table glass surface always clean. If contaminated, the glass surface should be cleaned with a dry clean cloth.

(6) Be careful not to injure your fingers or hands while disassembling or reassembling the unit.

1.2 General Description

OKI is pleased to introduce its latest innovation, the C5510MFP/C5540MFP, to offer business professionals a fast and cost-effective way to transmit paper documents electronically over the intranet and internet. With the speed and low cost of e-mails, the C5510MFP/C5540MFP significantly increases productivity and reduces the cost on document distribution.

With the addition of a laser printer, C5510 or C5540, the C5510MFP/C5540MFP is able to perform digital copying. Through the intranet with FTP, HTTP, or CIFS protocol, the C5510MFP/C5540MFP allows you to send digital document directly to a designated server or personal computer's file folder. The innovation provides business users with a cost-saving way to upgrade office equipments to digital ones and makes good use of the corporate intranet to maximize work efficiency.

1.3 Features

- Scan to E-mail:
  Connected to an Ethernet network and a SMTP server, the C5510MFP/C5540MFP allows you to transmit document(s) over the internet via email. With a touch of the e-mail button and the selection of your recipients' e-mail addresses, the document(s) is first scanned and converted into an image file, and then transmitted to remote recipients within minutes.

- Scan to Filing:
  Through the intranet with FTP, HTTP, or CIFS protocol, the C5510MFP/C5540MFP allows you to put document directly to a designated server or personal computer's file folder in one of these compressed formats, pdf, tiff, and jpeg.

- Digital Copying:
  Connected to a C5510 or C5540 printer, the C5510MFP/C5540MFP becomes a digital copier. With an intuitive control panel, making digital copy becomes fast and easy.

- Batch Delivering:
  The C5510MFP/C5540MFP allows a batch of 50-page document(s) to be continuously scanned and delivered at one time in reliable quality to increase your efficiency.

- Network and PC Printing
  The C5510MFP/C5540MFP is able to perform network or PC printing since it is installed in a network environment.

- Remotely Managing the Address and Profile Book
  When you type the machine's IP address in the URL field of your browser, the OKI Java-Manager allows you to remotely and safely managing the settings of C5510MFP/C5540MFP by entering a password for the administrator.

2. SPECIFICATION

2.1 Specification

2.1 Specification

Items	Specifications
General Specifications	
System Description	Multifunction Scan Station
Memory Size	Flash: 2.5 Mbytes Scan Buffer: 64MB DSP Buffer: 64MB Main Memory: 64MB
LCD Size	Text, 24 × 2, mono
LED Indication	Power saving Warning Power
External Connections	RJ-45 (for Network connection) ADF port USB 2.0 Host (To Printer) USB 2.0 Device (To PC)
Network Connection	10/100 Mbits auto-negotiation
Dimension	444(L) × 412(W) × 344(D)(mm)
Weight	6.5 kgs (With ADF)
Power Source	Input: 100~240V, 50~60 Hz Output: 24V DC, 2.09A
Power Consumption	Working <36W Standby <24W Sleep < 18W
Interface USB 2.0 host USB 2.0 device Ethernet 10/100Mb	 Copy Scan, Print Email, Scan to file, Print
Operating Temperature	10~35 degrees C, 10~85% RH
Storing Temperature	-20~60 degree C, 10~90% RH
Auto Document Feeder	
Capacity	50 sheets
Dimension	434 × 292 × 177 mm
Weight	1.6 kgs
Document Size	4.5" × 5.5" ~ 8.5" × 14"
Document Weight/Thickness	16 ~ 28 lb / 0.002" ~ 0.006"
Paper Feed	Face Up
Copy Specification	
Printer	OKI C5510/C5540
Printer Language	GDI(Hyper-C), PJL
Printer Interface	USB2.0
Multiple Copies	Up to 99
Copy Resolution	600 × 600 dpi
Copy Type	Plain paper, Ultra heavy, Transparency

Items	Specifications
Copy Quality	Speed, Fine
Density Control	5 Levels
Background Remove	Yes
Enlarge / Reduce	Whole Page (93%) 25%~400% in 1% increment/decrement Pre-set Scales
Input Tray	Auto /Tray 1/MP Tray
Paper Supply	Letter SEF (Short edge feeding) Legal SEF A4 SEF B5 SEF A5 SEF A5 SEG
Edge Erase	USA: 0~1 inch Europe: 0~25mm
Margin Shift	USA: 0~1 inch Europe: 0~25mm
Paper Saving (N-Up)	1 /4 in 1 page
Collate	On/Off
Job Counting	Copy, Scan, Print, Scan to Enable/Disable
Network Specification	
Connectivity	Ethernet 10BaseT/100BaseTX auto-negotiation with RJ-45 connector
Communication Protocol	TCP/IP, SMTP, HTTP, MIME, FTP, CIFS, DHCP, DNS, LDAP
Supported Browsers	Microsoft IE 4.1 or higher Netscape Navigator 4.0 to 4.78
Configuration Requirement	IP address Subnet mask Gateway SMTP server/POP3 server FTP server Web server
E-mail Specification	
Communication Protocol	SMTP, MIME, POP3
File Formats B&W Gray/Color	 PDF, TIFF, MTIFF PDF, TIFF, MTIFF, JPEG
Default File Format	PDF
Separation Limit	1MB, 3 MB, 5MB, 10 MB, 30MB, No limit
Resolution	75, 100, 150, 200, 300, 400, 600 dpi
Address Book Volume Max. Addresses Group No. of Addresses in Each Group	 100 20 50
Multiple Recipients Allow	Yes
Security Check	Yes
Mail Server Authentication	SMTP, POP3
Supported Mail Server Application	Lotus Mail Server 5.0 MS Exchange Server 2000 RedHat 7.0 SendMail MAC Mail Server in OS 9.04

Items	Specifications
Supported LDAP Server	Windows 2000 Active Directory Windows NT 4.0 + MS Exchange 5.5 Lotus Notes R5
Supported Mail Application	Microsoft Outlook 2000 Microsoft Outlook Express 5.0 Microsoft Outlook Express 6 Netscape Messenger 4.7 Netscape Messenger 4.73 MAC built-in MAIL application Eudora 4.3.2J Lotus Notes R5
Filing Specification	
Communication Protocol	FTP, HTTP, CIFS
File Formats B&W Gray/Color	 PDF, TIFF, MTIFF PDF, TIFF, MTIFF, JPEG
Default File Format	PDF
Resolution	75, 100, 150, 200, 300, 400, 600 dpi
Max. Number of Profiles	20
PC Scan Specification	
Image Sensor	Color CCD
Light Source	Cold Cathode Fluorescent Lamp
Optical Resolution	600 x 600 dpi
Output Quality	Input: 48 bits color Output: 24 bits Color 8 bits Gray 4 bits CMYK 1 bit Monochrome
Interface	USB 2.0 (To Device)

3. UNPACKING, INSTALLATION, AND TRANSPORTATION

3.1 Precautions of Installation
3.2 Unpacking Procedure
3.3 Installation
3.4 Placing the Original
3.5 Transportation

3.1 Precautions of Installation

Pay attention to the following matters before unpacking and installation.

- Do not install in a place where vibration may occur.
- Keep the C5510MFP/C5540MFP out of direct sunlight. Do not install near a heat source.
- Do not place the C5510MFP/C5540MFP around materials which shut off the circulation of air.
- Do not install in a humid or dusty place.
- Use care not to scratch the glass surface of the C5510MFP/C5540MFP or the document holding pad with a clip or staple.
- Do not use the wall socket with connecting devices which may generate noise, for example, air-conditioner, etc.
- Only use the AC adapter (model name ADP-50ZB made by Delta Electronics, Inc.) included with the machine. Using other AC adapters may damage the machine and void the warranty.
- Use a suitable AC power source.
- Place the C5510MFP/C5540MFP on a level surface.

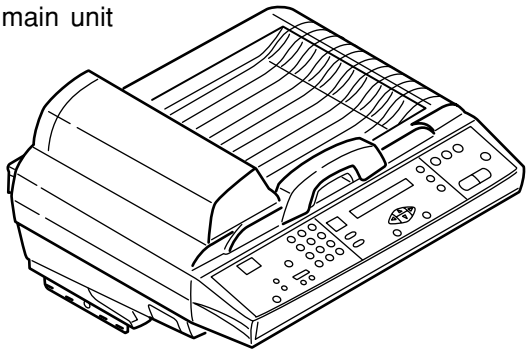
3.2 Unpacking Procedure

Unpack the C5510MFP/C5540MFP according to the following procedure.

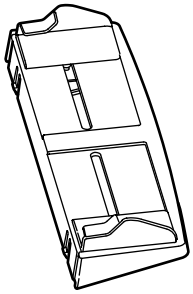
- Remove the packing material.
- Remove the C5510MFP/C5540MFP from the shipping container.
- Remove the C5510MFP/C5540MFP from the PVC bag.
- Check the items against the following illustration.
- For any missing items, please contact the nearest dealer or distributor.

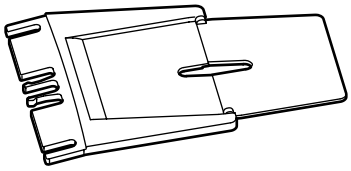
Note: Keep all the packing material in case you may need to return the C5510MFP/C5540MFP.

C5510MFP/C5540MFP main unit

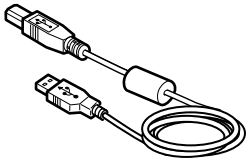


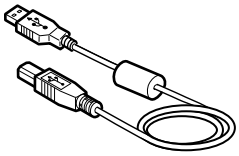
Paper feed tray and paper support



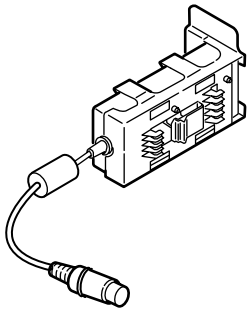


Two pieces of USB cables

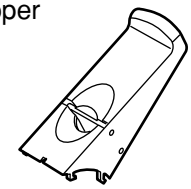




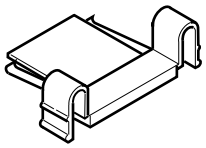
Power adaptor with holder



Paper stopper



ADF pad

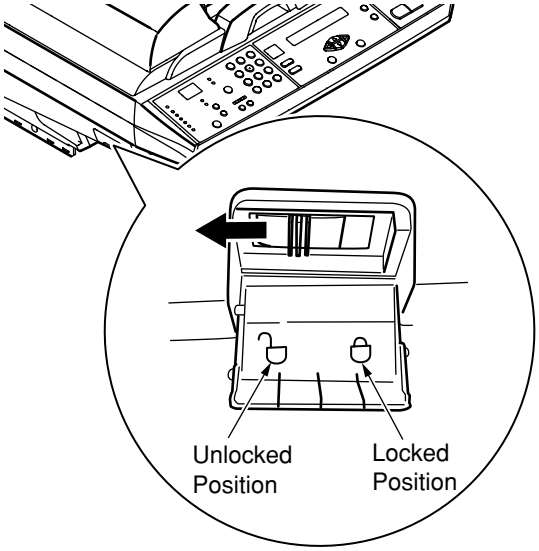


3.3 Installation

3.3.1 Unlocking the Scan Unit

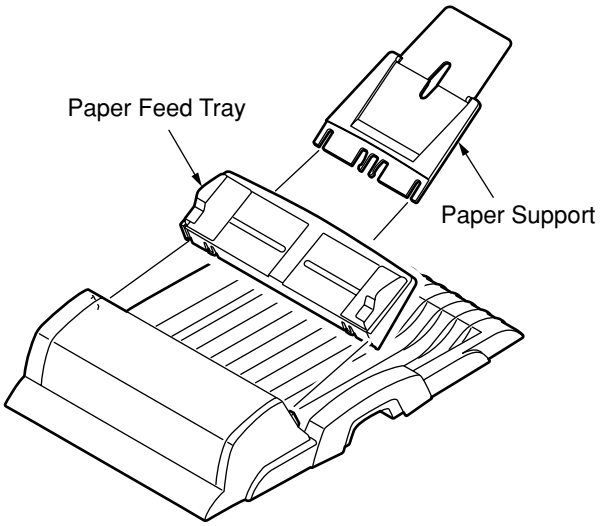
The scan unit is locked during transport to protect scanning mechanism from being damaged. Be sure to unlock the scan unit before using the machine.

1. Press down the lock switch located on the left corner as shown below.
2. Move the lock switch to the “unlocked position”.



3.3.2 Installing the Paper Feed Tray

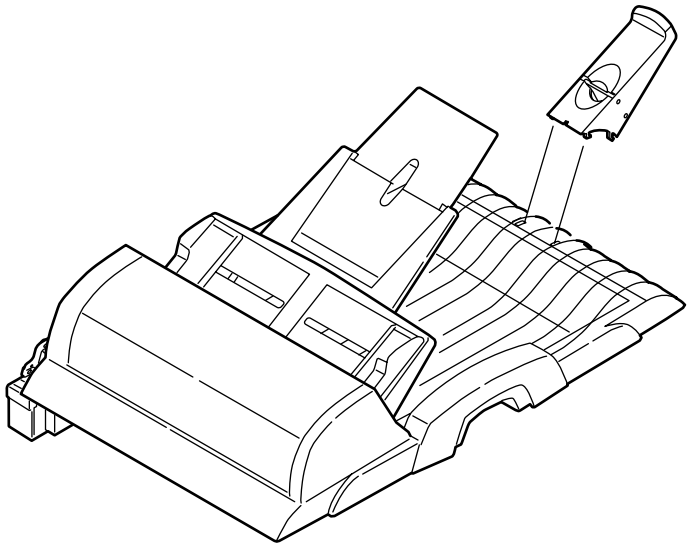
1. Attach the Paper Support to the Paper Feed Tray.
2. Then, attach the Paper Feed Tray to the machine.



3.3.3 Installing the Paper Stopper

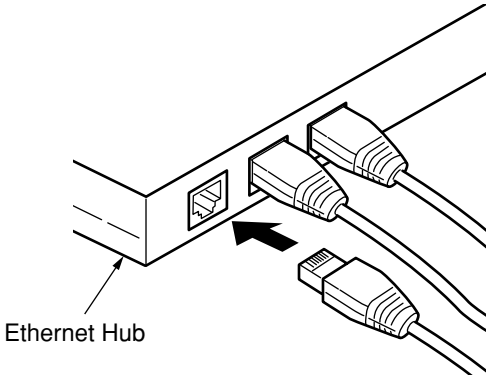
Attach the paper stopper to the end of the document cover as shown below.

If you are copying or sending a batch of document in A4 or Letter size, please pull the lever up to stop paper from falling apart. If your paper is larger than A4 or Letter, please hold the lever and press down to return to original position.

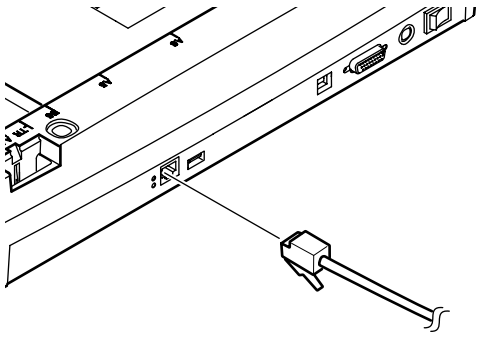


3.3.4 Connecting the Ethernet Cable

1. Connect one end of your Ethernet LAN cable to an available port of your Ethernet Hub.

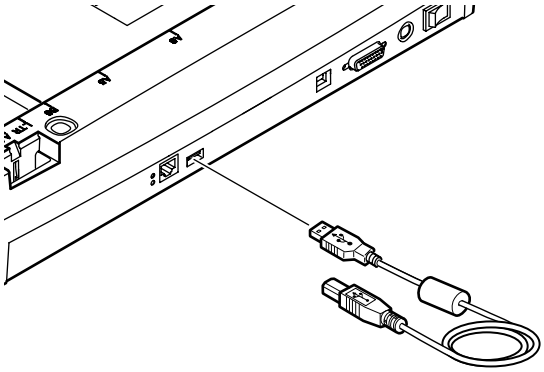


2. Connect the other end to the network port at the back of the C5510MFP/C5540MFP.



3.3.5 Connecting the Printer Cable

1. Connect one end of the printer cable to your printer.
2. Connect the other end to the printer port of your C5510MFP/C5540MFP.

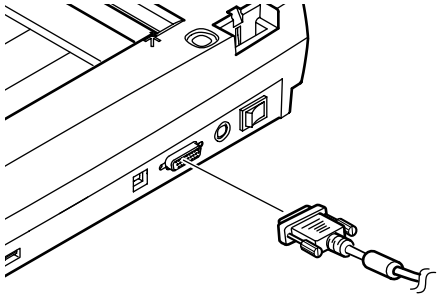


Important:

To make copies through your printer, please first turn on your printer and then turn on C5510MFP/C5540MFP. Otherwise, you may encounter problem in making copies through the printer.

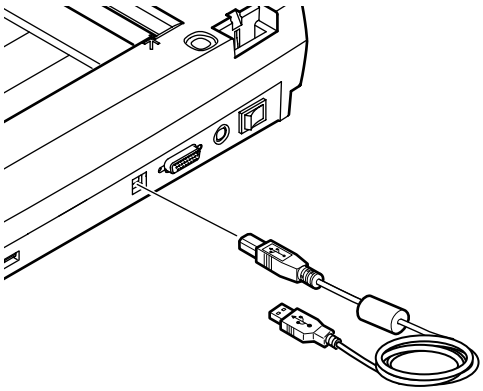
3.3.6 Connecting the ADF Cable

Connect the ADF (Auto Document Feeder) cable (attached to the document cover) to the ADF port at the back of the C5510MFP/C5540MFP.



3.3.7 Connecting to a Computer

1. Connect one end of the USB cable to the USB port at the back of your computer.
2. Connect the other end to the USB port at the back of your C5510MFP/C5540MFP.

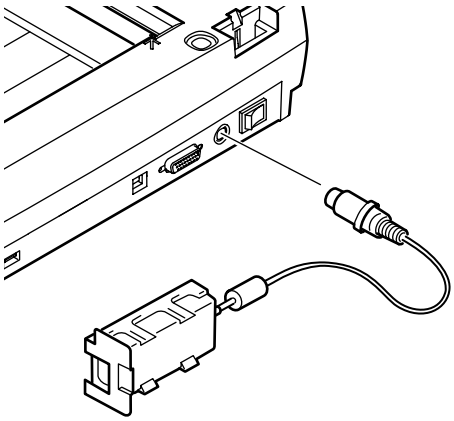


Important:

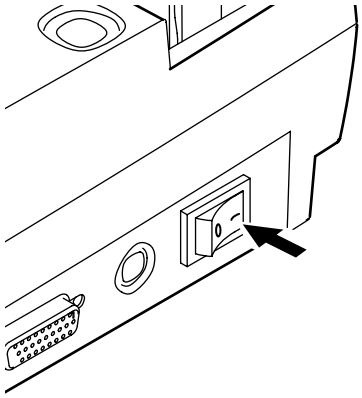
To ensure the scan function works properly, please install the scanner driver FIRST before connecting the USB cable to your computer.

3.3.8 Connecting the Power and Turning ON the Machine

1. Press the power switch to the “0” position to turn off C5510MFP/C5540MFP.
2. Connect the small end of the power cable to the power port of your C5510MFP/C5540MFP.



3. Connect the other end to an appropriate power outlet.
4. Press the power switch to the “I” position to turn on your C5510MFP/C5540MFP.

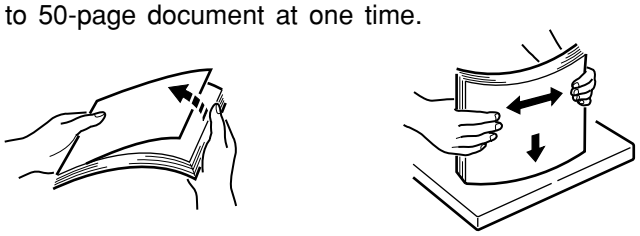


Note:

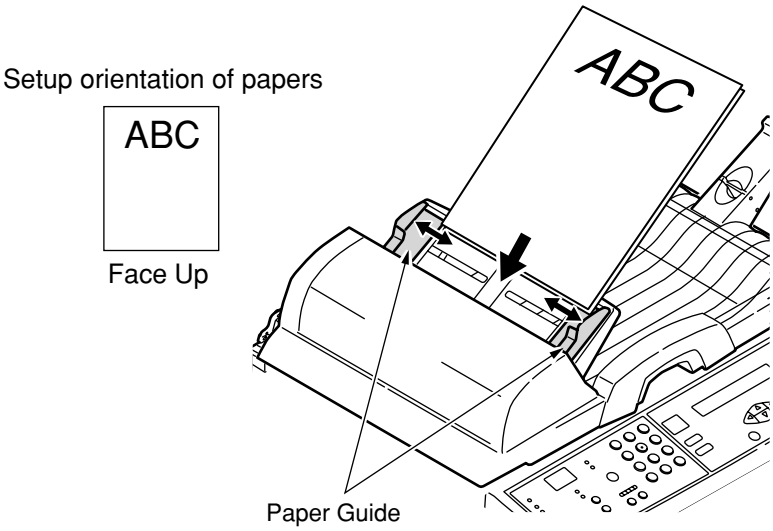
You can press the Power Save button on the control panel to switch immediately to the power saving mode.

3.3.9 Placing Your Document(s) in the ADF

1. Make sure your document is free of staples, paper clips and is not worn.
2. If you have multiple pages, fan your document(s) to avoid occasional paper jam. The ADF can hold up to 50-page document at one time.

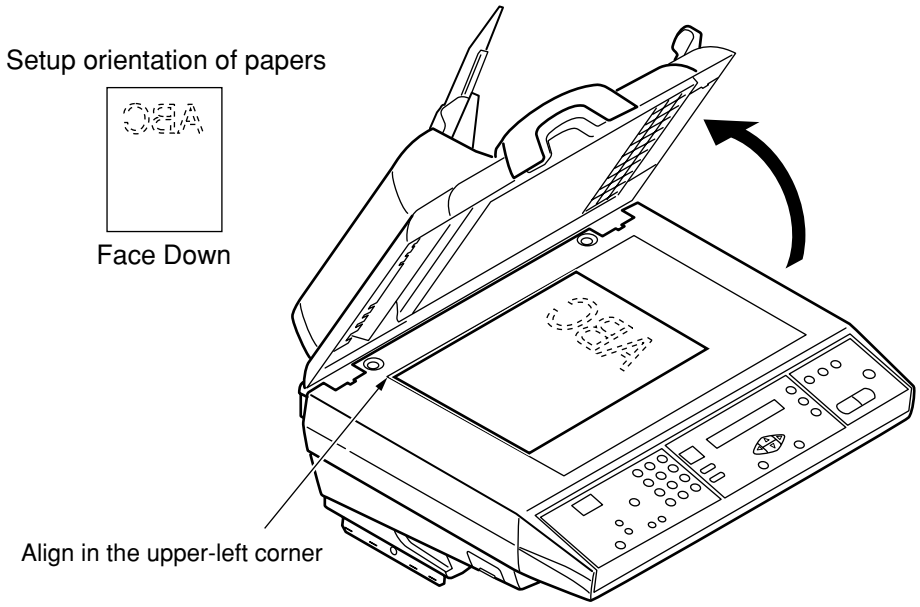


3. Place your document(s) with your text FACE UP in the ADF and assure top of the pages feed in first.
4. Adjust the Paper Guides to center the document(s) in the ADF.

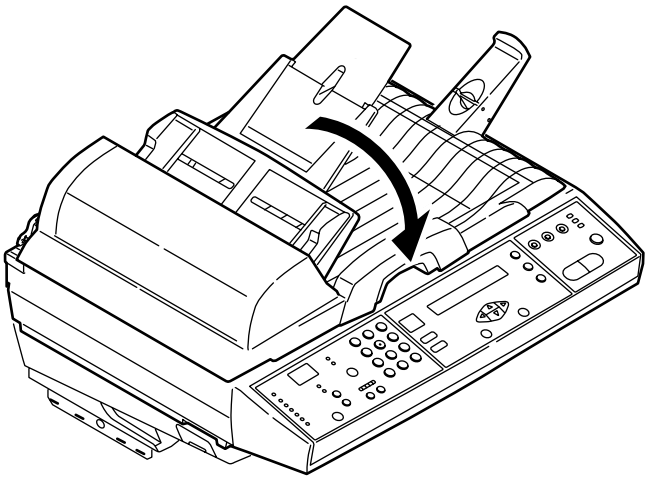


3.3.10 Placing Your Document(s) on the Glass

1. Open document(s) cover to reveal the glass.
2. Place your document(s) with the text FACE DOWN on the glass and align the document(s) in the upper-left corner of the glass as illustrated in the following figure.



3. Close the document cover.



3.4 Transportation

To move the C5510MFP/C5540MFP from where it is installed, for repair or any other reason, make sure to observe the following conditions:

(1) Turn off the power of the C5510MFP/C5540MFP.
If the scanning head is located at a place other than front of the glass, turn the C5510MFP/C5540MFP on to return the scanning head to the front of the glass. After the scanning head is returned to the home position, turn the power supply off.

(2) Move the lock switch to the “locked position”.

(3) Remove all cables.

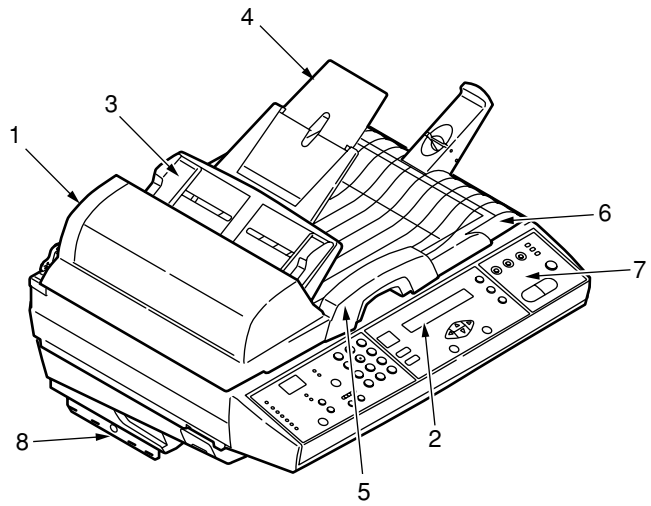
(4) Put the C5510MFP/C5540MFP in the packing case with the packing material.

4. PARTS IDENTIFICATION

4.1 External View

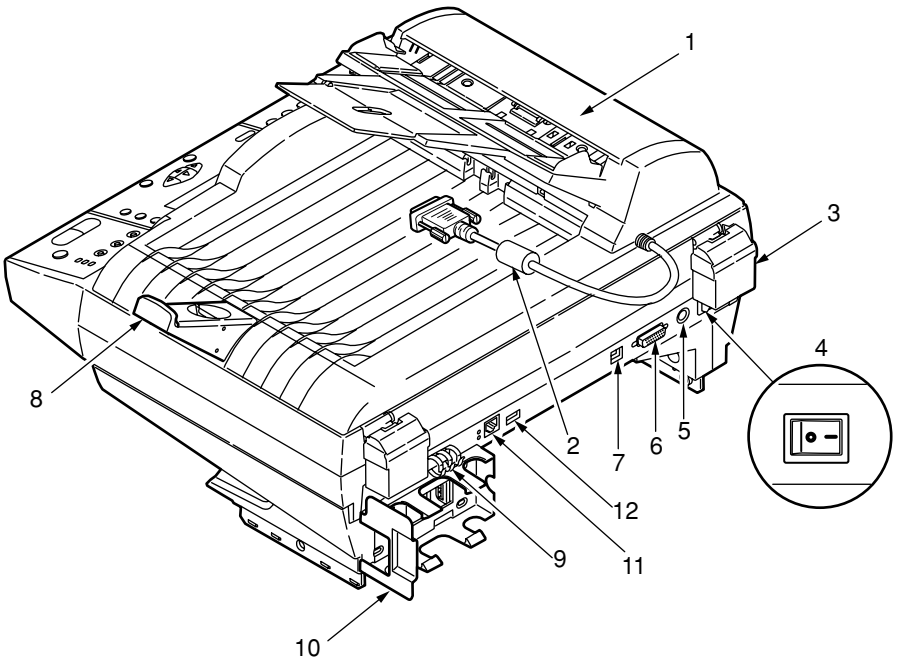
4.1 External View

4.1.1 Front View



1. ADF unit
2. LCD-display
3. ADF Paper Tray
4. ADF Paper Support
5. Cover Handle
6. Document(s) Cover
7. Control Panel
8. Stand (To connect the cover of printer)

4.1.2 Rear View



1. ADF Unit:	To load multi-page document.
2. ADF Cable:	To connect the main unit.
3. Hinge	To support the document cover.
4. Power Switch	To turn on or off the machine.
5. Power Jack	To connect a power cable.
6. ADF Connector	To connect ADF cable.
7. USB Connector	To connect a personal computer with USB interface.
8. Paper Stopper	To prevent the scanned document from falling.
9. Cable Cramp	To arrange the cable.
10.Power Adapter Holder	To hold the power adapter and fix the power adapter on the machine.
11.LAN connector	To connect an ethernet cable.
12.Copy connector	To connect a C5510/C5540.

4.1.3 Control Panel

*Panel A

Part A Part B Part C

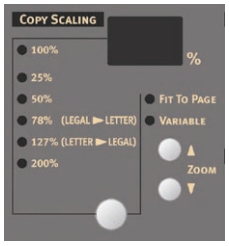
*Panel B

Part A Part B Part C

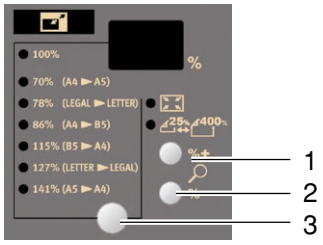
*Panel A is used in the United States.
*Panel B is used in Europe.

Part A: Copy Area

Scaling AreaÅF Used to reduce document down to 25% or enlarge it up to 400%.

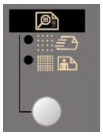


U.S.



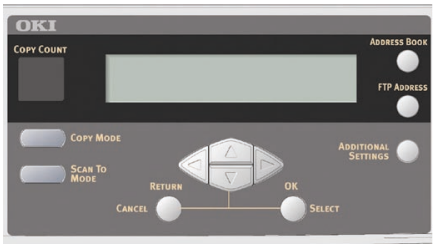
Europe

1. Increase scaling in 1% increment up to 400%
2. Decrease scaling in 1% Decrement down to 25%
3. Select scaling from the preset percentages

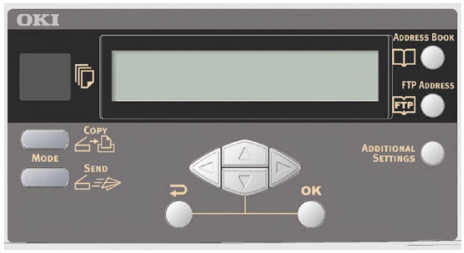
US  Europe	Used to choose copy quality.
US Europe	Used to change the density level.
	Used to enter copy count or e-mail address.

Part B: LCD-display & Function Keys:

Used to display current operation and select working mode.



U.S.



Europe

Function Keys and others: (Shown in Europe style)

	Used to indicate the number of copies.
	Used to choose the copy mode. (also the default working mode)
	Used to choose the Scan to e-mail, or Scan to Server mode.
	Used to execute the additional settings of “copy” and “Scan to” mode. (The settings are available only for three minutes. After three minutes, the settings will return to default value.)
	Used to move the cursor up/down/left/right in the LCD. The up/down keys can be used to switch the indication of the function. The left key can be used to return to the upper level of the setting. The right key can be used to go to the lower level of the setting.
	Used to select and confirm current selections for the settings.
	Used to cancel selections and go back to upper level of the setting. The key is also used to cancel previous input.
	Used to indicate the existing FTP address for “Scan to” function. This key is only available in “Scan to” mode.
	Used to indicate the existing E-mail address for “Scan to” function. This key is only available in “Scan to” mode.

Part C: Start & Other Keys: (Shown in Europe style)

Used to select special requirement or the start key to send or copy your document(s).

	Used to set up the printer and the scanner.
	Used to change scanner setting to factory default value.
	Used to go to sleep mode immediately. (A continuous press is invalid)
	Power LED indicates power on and ready status. Alarm LED indicates error status. Sleep LED indicates power saving status.
	Used to send or copy the document(s) in black and white.
	Used to send or copy the document(s) in colors.
	Used to stop every operation (LCD indication shifts to stand-by screen of each function) but not effect all settings.

5. THEORY OF OPERATION

5.1 Introduction
5.2 Main Control Unit

5.1 Introduction

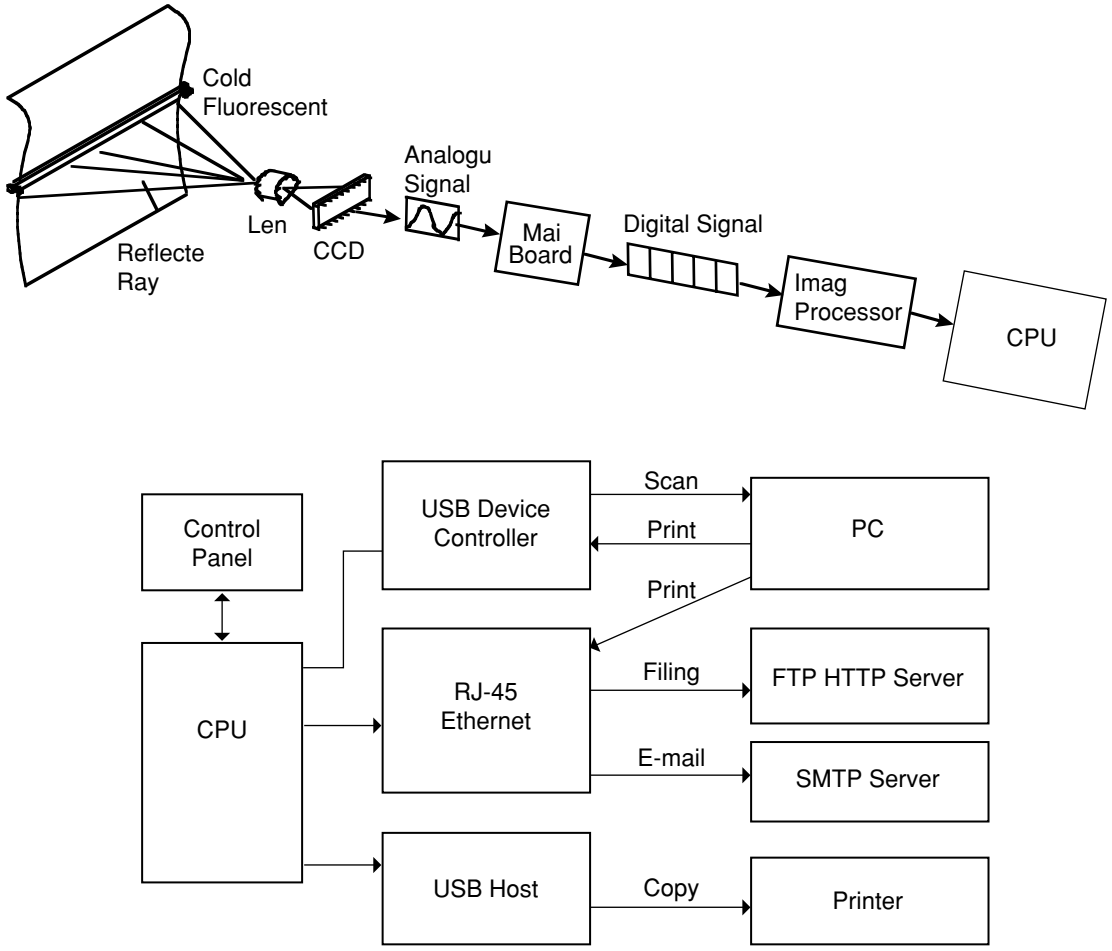


Figure 5.1 Theory of Operation

The reflected rays of your original as shown in the above Figure 5.1 pass through the lens and creates an image on the CCD (Charged Coupled Device). Then, according to the different light intensity perceived by the CCD, the CCD will transfer these data into a series of analog signals to the main board, where the signals are turned into digital signals. These digital signals flow to the image processor and store into the CPU (Central Processing Unit). Through the commands from the Control Panel, the digital signals may go to USB host (copy port) to send copy command to printer, or to RJ-45 to send filing command to FTP/HTTP server or to send email command to SMTP server, or to USB device (USB port) to PC for scan, or receive print command from PC via USB device (USB port for print).

5.2 Main Control Unit

5.2.1 System Diagram

Figure 5.2 shows the system block diagram.

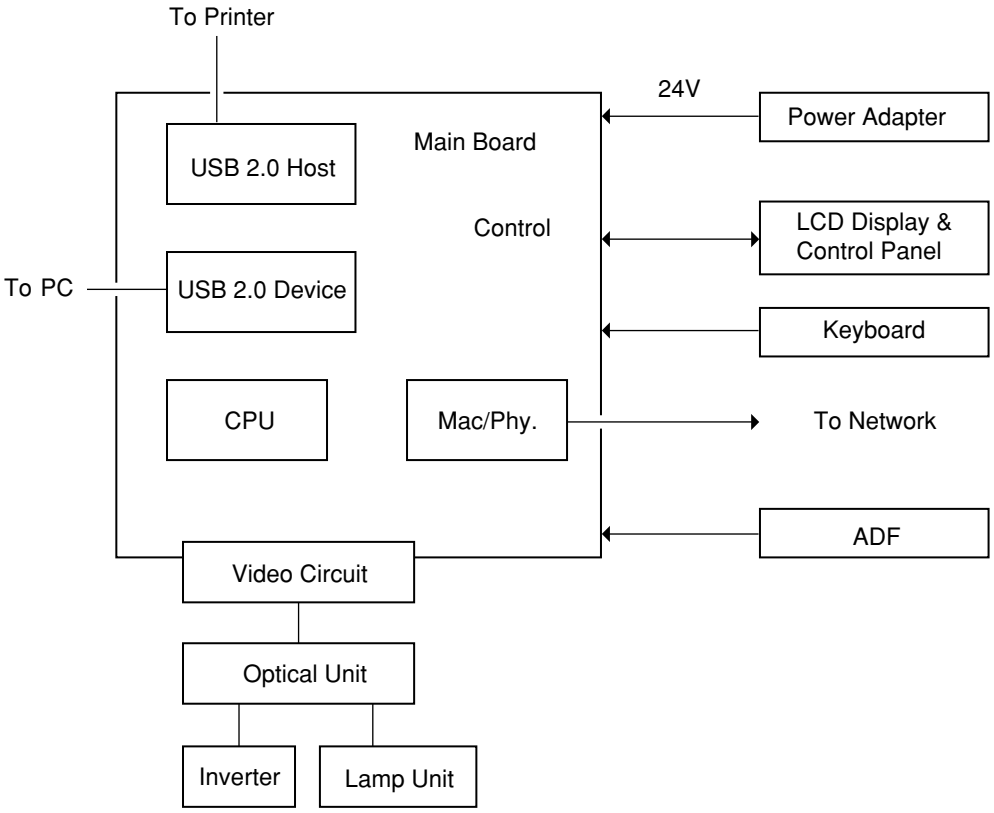


Figure 5.2 System block diagram

5.2.2 Main Control Circuit

This C5510MFP/C5540MFP is controlled by MIPS CPU. The CPU is configured with a 2.5MB external ROM program area, a 64MB external RAM work area.

I/O Address Maps:

ROM Area:

Flash Layout

29LV040 (Flash 0)

Loader	256KB
Scanner Firmware	256KB

512KB

29LV160 (Flash 1)

2MB

System Firmware	1 MB
Setting	128KB
Address Book/Profile	64KB
Printer Profile	128 KB
Web Page	256 KB
DSP Code	256 KB
Others	192 KB

- External RAM Working Area:

64MB SDRAM

- External I/O

External I/O	I/O Map	External Interrupt
ISP1581, USB2.0 Device	Bank 2	INT1
OA982	Bank 3	INT0
Panel	Bank 6	X
OA982-DMALED	Bank 7	X

- PCI Device

Device	ID	External Interrupt
RTL8100C	PCIA, ID=0x11	INT3
VT6212	PCIB, ID=0x12	INT4
BSP-15	PCIC, ID=0x13	INT5

5.2.3 Video Circuit:

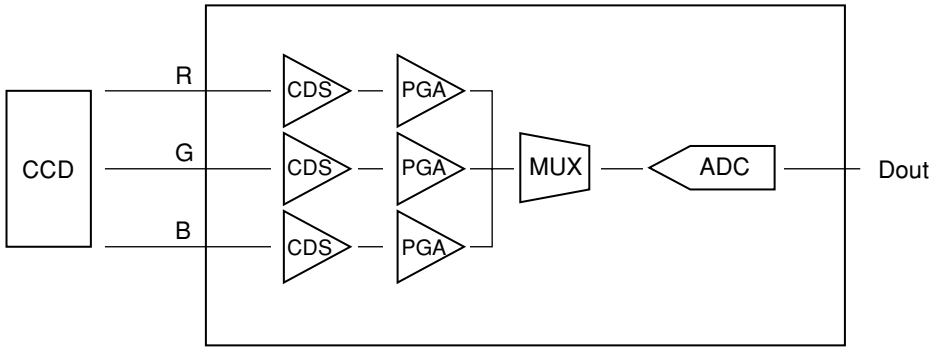
The video circuit of this C5510MFP/C5540MFP includes: 1. CCD driving circuit and motor control signal 2. CCD signal processing circuit.

1. CCD Driving Circuit & Motor Control Signal
   The CCD driving circuit is used to generate correct signals to the CCD, so that the CCD may generate the correct image data.
   Signal for CCD:

   Pin Assignment for CCD cable

Pin No.	Name	Function
1	FINV260	Inverter Power
2	FINV260	Inverter Power
3	H24G	Inverter/Motor Ground
4	H24G	Inverter/Motor Ground
5	M24F-F	Motor Power
6	M24F-F	Motor Power
7	FMPH2	Motor Phase 1
8	FMPH1	Motor Phase 2
9	MVrefS1	Motor Driver Current Select 1
10	GND	Digital Ground
11	FMI12	Motor Control Signal
12	FMI02	Motor Control Signal
13	FMI11	Motor Control Signal
14	FMI01	Motor Control Signal
15	GND-	Digital Ground
16	CCDVCC-	CCD Board Digital Power
17	MVrefso	Motor Driver Current Select 0
18	FHMSen	Home Sensor
19	FPH1	CCD Phase 1
20	FPH2-	CCD Phase 2
21	FCP	CCD Clamp Signal
22	FRS	CCD Reset Signal
23	GND	Digital Ground
24	FB/W-SW	CCD Color/Gray Select
25	+12Va	CCD Power
26	FSH	CCD Shift Signal
27	FVOR	CCD Red Channel Output Signal
28	AGND	Analog Ground
29	FVDG	Green Channel
30	AGND	Inverter Power
31	FVOB	Blue Channel
32	AGND	Blue Channel

2. CCD signal processing circuit



CCD Signal Processor

The CCD signal processor includes all the necessary circuitry to perform three-channel conditioning and sampling. The signal chain consists of three-channel correlated double sampling (CDS) and programmable gain adjustment of the CCD output (PGA) is a 16 bit analog to digital connector (ADC) quantizes the analog signal.

* PGA: Programmable gain amplifier

5.2.4 Panel and LCD Module Circuit

The circuit for Panel and LCD module controls the function of the entire module including the LCD Display, the push button on the Control Panel, and LED display.

Pin assignment of LCD module

Pin No.	Name	Function
1	D.G.	Digital Ground
2	KPDATA0	Data Bus bit 0
3	KPDATA1	Data Bus bit 1
4	D.G	Digital Ground
5	KPDATA2	Data Bus bit 2
6	KPDATA3	Data Bus bit 3
7	D.G.	Digital Ground
8	KPDATA4	Data Bus bit 4
9	KPDATA5	Data Bus bit 5
10	D.G.	Digital Ground
11	KPDATA6	Data Bus bit 6
12	KPDATA7	Data Bus bit 7
13	D.G.	Digital Ground
14	VCC	Digital Power Supply
15	VCC	Digital Power Supply
16	VCC	Digital Power Supply
17	VCC	Digital Power Supply
18	D.G.	Digital Ground
19	D.G.	Digital Ground
20	LCDRS	LCD Register Selection
21	LED3	Led Chip Select 3
22	LCDRW	LCD Read/Write Selection
23	nLED4E	LED Chip Select 4
24	nBRD	Scan Key Read Chip Select
25	nBWR	Scan key Write Chip Select
26	LCDE	LCD Enable Signal
27	nLED0	LED Chip Select 0
28	nLED1	LED Chip Select 1
29	nLED2	LED Chip Select 2
30	D.G.	Digital Ground
31	- 8V	NC
32	RST5V#	LCD Reset Signal

5.2.5 Sensor Input

The sensor input includes home position sensor.

Home position sensor

The home position of the carrier motor is detected by photo sensor. The photo transistor transmission to the photo sensor receiver circuit is shown below.

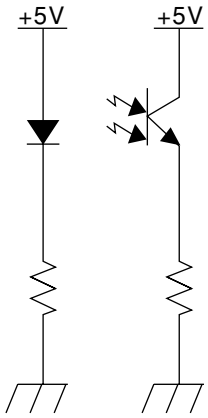
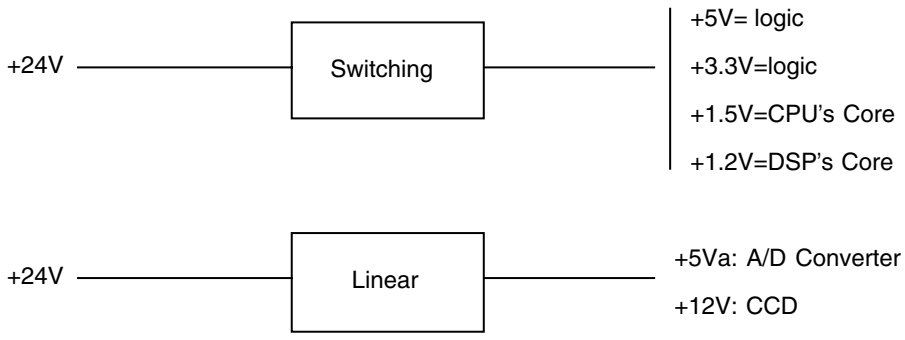


Figure 5.3 Home position sensor

The home position is detected when the carrier passes between the LED and the photo transistor.

5.2.6 Sub Power Supply Circuit

The sub power supply circuit is provided for the internal analog circuit. Input is 24V. The circuit configuration is shown below:



5.2.7 Power Supply

In this system, there is only one type of power supply. Please see Table 5.1 for details.

Table 5.1 Power Adapter

Type / Characteristic	Wall-mount
Input voltage range	100-240V
Input current (max.)	2.09A
Input frequency	50-60Hz
Output voltage	+24Vdc
Min. load current	0A
Max. load current	2.09A
Total Power	50W

6. TROUBLESHOOTING

6.1 Troubleshooting Flowchart
6.2 Tables

This section is given to locate and resolve the causes of troubles so as the C5510MFP/ C5540MFP is always in good working condition. The trouble modes, relevant units and maintenance methods are described below.

When a problem occurs, troubleshoot the problem according to the symptoms it shows.

Check the following first:

1. Is anything operated improperly?
2. Does the problem recur, or is it regular?

Figure 6.1 to Figure 6.3 show the troubleshooting flowcharts.

The causes and maintenance methods for each failure mode are described in Table 6.1 through 6.7

6.1 Troubleshooting Flowchart

6.1.1 Power ON to C5510MFP/C5540MFP Ready

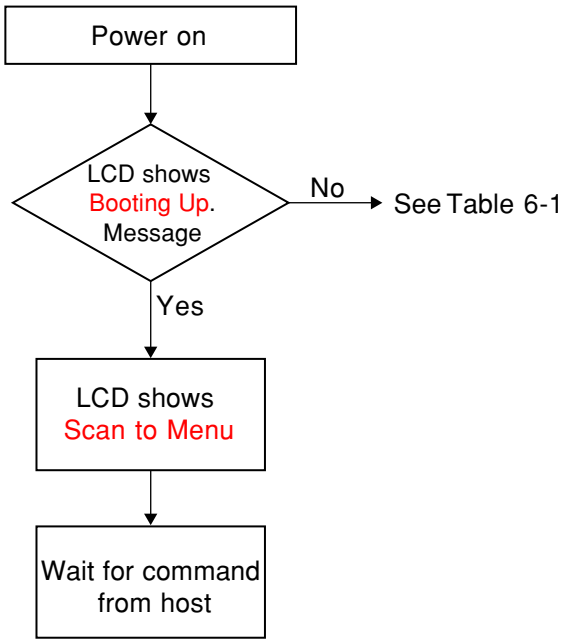


Figure 6.1 Power on to C5510MFP/C5540MFP ready

6.1.2 Copy Operation

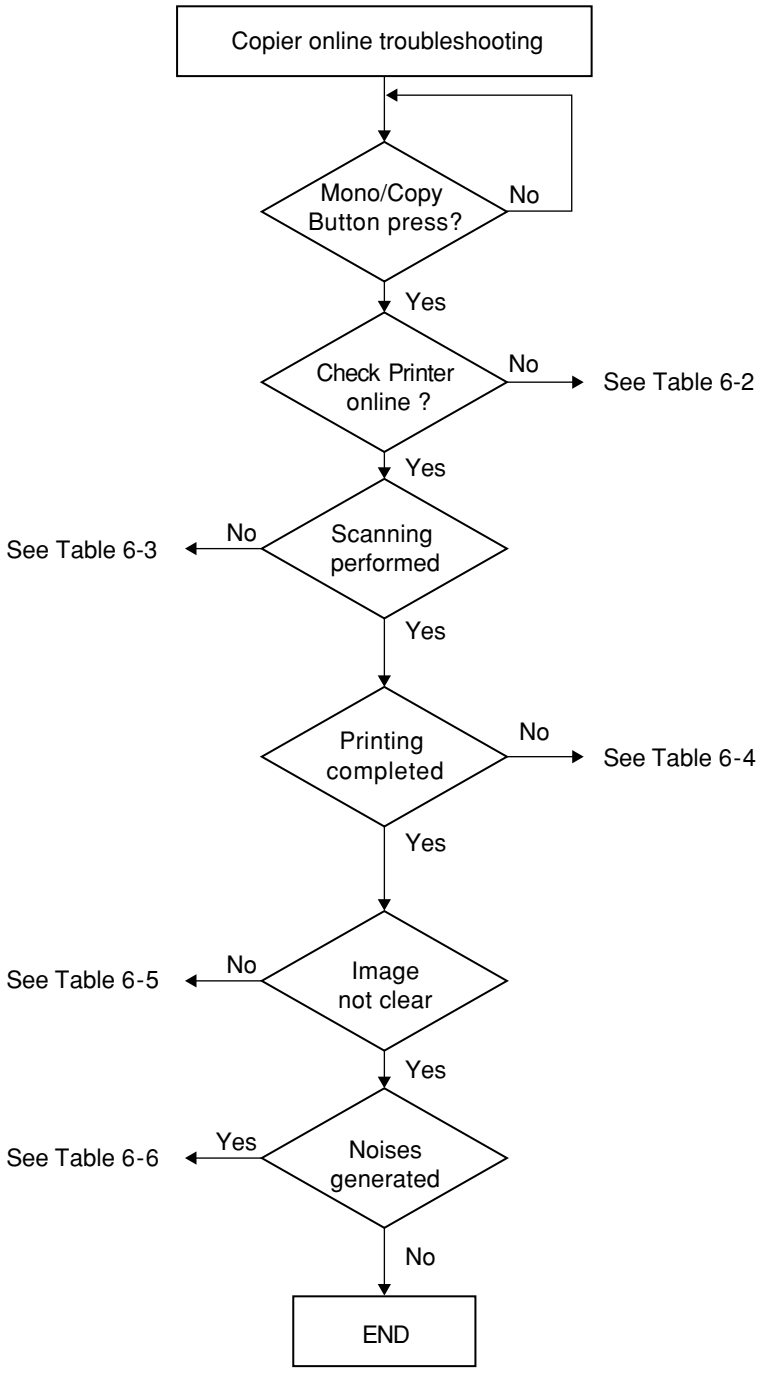


Figure 6.2 Copy operation flow

6.1.3 Email Operation

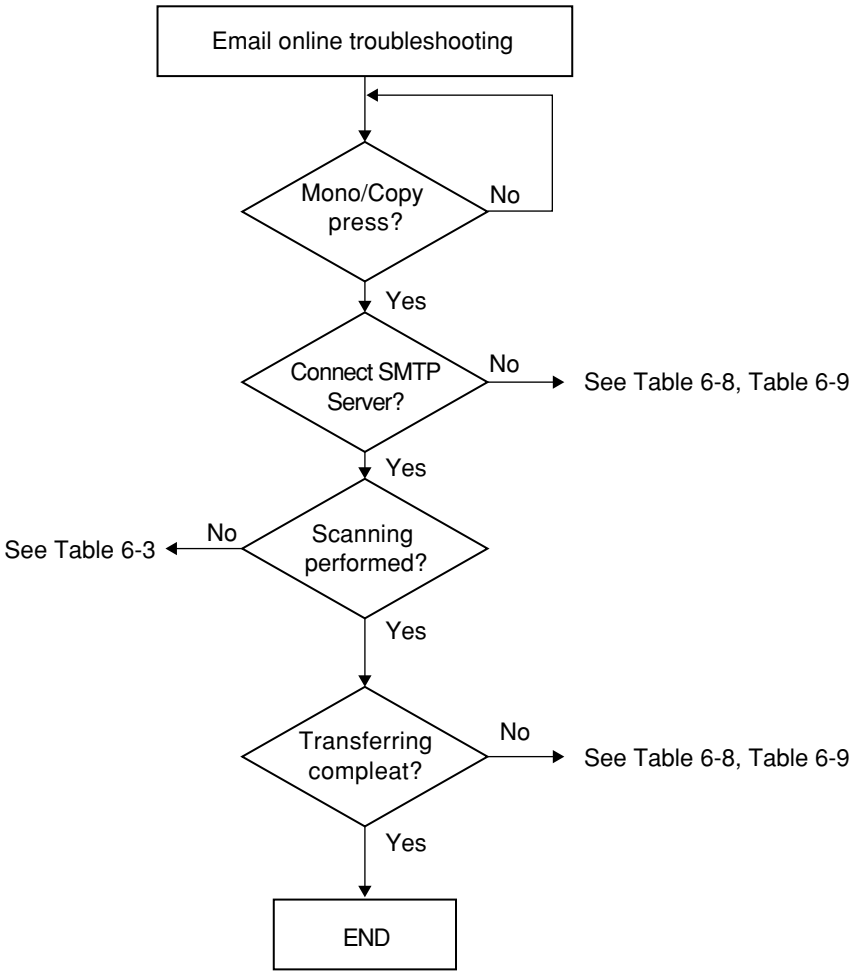


Figure 6.3 Email operation flow

6.1.4 Control Panel Operation

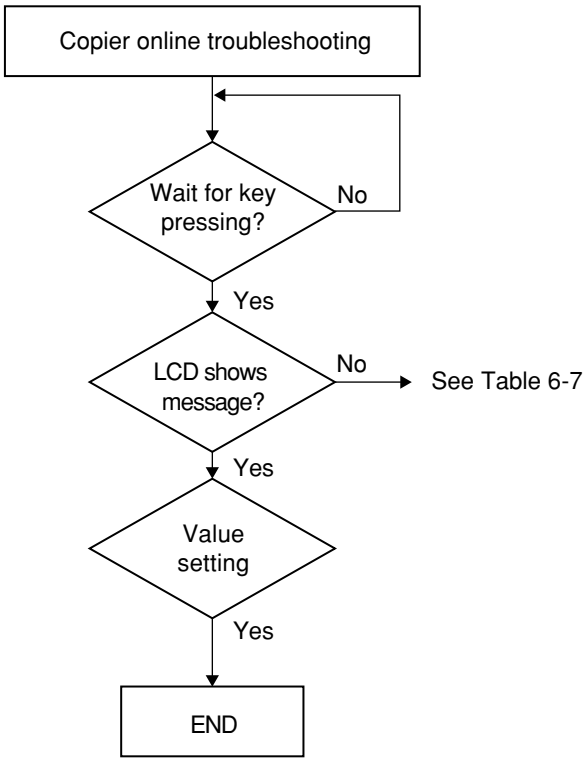


Figure 6.4 Control panel operation

6.2 Tables

The following tables provide detailed troubleshooting information.

Table 6.1	The LCD does not display.
Table 6.2	Printer does not react.
Table 6.3	Optical path dirty or hardware problem.
Table 6.4	Printer does not print.
Table 6.5	Image not clear.
Table 6.6	Noise generated.
Table 6.7	LCD does not show message after command.
Table 6.8	C5510MFP/C5540MFP is not connected to the network
Table 6.9	C5510MFP/C5540MFP cannot send email

6.2.1 LCD Does Not Display

Table 6.1

Cause	Relevant Unit	Check Method	Maintenance Method
Unplugged from outlet	None	Visual check	Insert the AC plug into the outlet
DC power unplugged from unit	None	Visual check	Insert the DC power adapter cable into the unit
AC voltage failure	None	AC outlet voltage check	None
Power adapter output voltage failure	Power unit	Output voltage (+24v) check	Replace the power unit
PCB failure	Main control PCB	Tester check (+24V, GND)	Remove the cause or replace the PCB
LCD module main board connection failure	LCD module main board	Visual check	Plug the connector and secure it firmly

6.2.2 Printer Does Not React

Table 6.2

Cause	Relevant Unit	Check Method	Maintenance Method
Printer cable failure	Printer cable	Visual check	Secure printer cable firmly or replace the printer cable
Printer link failure	Main PCB	Visual check	Replace the PCB
	Printer paper jam	Visual check	Remove paper
	Printer paper empty	Visual check	Insert paper
	Printer problem	Visual check	See printer manual
	Printer busy	Visual check	Wait till printer ready

6.2.3 Scanning Is Not Performed

Table 6.3

Cause	Relevant Unit	Check Method	Maintenance Method
Scanner cable failure	Scanner cable	Visual check	Attach the scanner cable
Scanner link failure	Main PCB	Visual check	Replace the PCB
	Scan Module		Replace the Scan Module

6.2.4 Printer Does Not Print

Table 6-4

Cause	Relevant Unit	Check Method	Maintenance Method
Printer select wrong	Printer	Visual check	Make sure the printer information on the LCD display is correct.
Paper size incorrect	Paper tray	Visual check	Replace paper tray (The paper size being selected is inconsistent between the printer & the C5510MFP/C5540MFP).
Printer problem		Visual check	Check printer

6.2.5 Image Unclear

Table 6-5

Cause	Relevant Unit	Check Method	Maintenance Method
Lamp too dark	Lamp	Visual check	Replace the lamp
Dirt on flatbed glass	Flatbed glass	Visual check	Clean the flatbed glass with isopropyl alcohol
Printer toner low	Printer toner	Visual check	Check printer toner or replace the toner
Printer memory not enough	Printer	Visual check	Add printer memory

6.2.6 Noise Generated

Table 6-6

Cause	Relevant Unit	Check Method	Maintenance Method
Motor unit failure	Motor unit	Replace the motor unit	Replace the motor
Main control PCB failure	Main control PCB	Replace the main control PCB	Replace the main control PCB
Scanning module failure	Scanning module	Check scanning module shakiness	Replace the scanning module
Dirt on rail	None	Visual check	Clean the rail with oil

6.2.7 LCD Does Not Show Message After Command

Table 6-7

Cause	Maintenance Method
LCD module cable failure	Attach the LCD module cable and secure it firmly
LCD problem	Replace the LCD module
Push button failure	Replace the LCD module

6.2.8 C5510MFP/C5540MFP Is Not Connected to the Network

Table 6-8

Cause	Maintenance Method
RJ-45 connector is not plugged in	Plug the connector in
Network cable is damaged	Replace a good one
IP address is invalid	Ask MIS for a valid address
Subnet Mask is invalid	Ask MIS for a valid value
Gateway IP is invalid	Ask MIS for a valid address

6.2.9 C5510MFP/C5540MFP Cannot Send Email

Table 6-9

Cause	Maintenance Method
SMTP server IP is wrong	Ask MIS for a correct SMTP server address
“From” address is wrong	Check “From” email account
“To” address is wrong	Check “To” email address
Other causes	Please refer to the following error code table

6.2.10 Error Message

6.2.10.1 Error Message During Initializing

Error Message	Meaning
Hardware Error Check Scanner	Hardware Error
Lamp Error Check Scanner	Lamp Error
Home Sensor/Lock Error Check Scanner	Home Sensor or Lock Error Release the Lock
ADF Paper Jam Check Scanner	ADF Paper Jam Remove the paper
PIN ID Error Please Re-input	Please Re-input
Failed to Detect Printer	Failed to detect printer. 90second Time-out Check the printer is on line or cable is connected
Failed to get Printer Information	Failed to get printer information
Check The Printer Press Stop key	Failed to detect printer or failed to get printer information.

6.2.10.2 Error Message During Printing and Copying

Error Message	Meaning
Printer is off-line Check The Printer	Shows off-line status Press ONLINE button of printer
10007 Check The Printer	Check The Printer
Optimizing Temperature Check The Printer	Because the drum temperature is high, printing is temporarily suspended. Or, the printer is waiting for implementation of heat measure for media switch from narrow paper to wide paper.
10058 Check The Printer	Auto registration adjusting in progress
10988 Check The Printer	Auto tone adjusting in progress
10994 Check The Printer	Auto density adjusting in progress
Black Toner Low Order K Toner	Toner low. This message is also displayed when Y, M or C waste toner box is near full.
Yellow Toner Low Order Y Toner	
Magenta Toner Low Order M Toner	
Cyan Toner Low Order C Toner	
Y Waste Toner Full Replace Y Toner	The printer can still print. Allows printing about 50 pages of A4 size at 5% density, then stops with Waste Toner Full Error again. The LCD message indicates that the Waste Toner box is full.
M Waste Toner Full Replace M Toner	
C Waste Toner Full Replace C Toner	
K Toner Empty Replace K Toner	If a toner empty occurs and a user opens/closes the cover or reboots the printer, this phenomenon happens. When the printer printed approx. 50 pages (A4, density 5%), the error occurs again.
Y Toner Empty Replace Y Toner	
M Toner Empty Replace M Toner	
C Toner Empty Replace C Toner	
K Drum Near Life Order K Drum	Drum near life.
Y Drum Near Life Order Y Drum	
M Drum Near Life Order M Drum	
C Drum Near Life Order C Drum	
Fuser Unit Near Life Order Fuser	Fuser unit near life.
Belt Unit Near Life Order Belt	Belt unit near life.

Error Message	Meaning
K Drum Life Replace K Drum	If a drum life error occurs and a user opens/closes the cover or reboots the printer, this phenomenon happens. When the printer printed 500 pages, the error occurs again.
Y Drum Life Replace Y Drum	
M Drum Life Replace M Drum	
C Drum Life Replace C Drum	
Fuser Unit Life Replace Fuser	If a fuser life error occurs and a user opens/closes the cover or reboots the printer, this phenomenon happens. When the printer printed 500 pages, the error occurs again.
Belt Unit Life Replace Belt	If a belt life error occurs and a user opens/closes the cover or reboots the printer, this phenomenon happens. When the printer printed 500 pages, the error occurs again.
10053 Check The Printer	Belt Reflex Check error. This is not a user-level error. (If it happens, change the mode to Shipping mode. See the Maintenance Manual.)
10976 Check The Printer	This is not a user-level error. (If it happens, change the mode to Shipping mode. See the Maintenance Manual.)
10975 Check The Printer	This is not a user-level error. (If it happens, change the mode to Shipping mode. See the Maintenance Manual.)
10050 Check The Printer	Registration error. This is not a user-level error. (If it happens, change the mode to Shipping mode. See the Maintenance Manual.)
10054 Check The Printer	Sensor calibration error. This is not a user-level error. (If it happens, change the mode to Shipping mode. See the Maintenance Manual.)
10051 Check The Printer	Gamma error. This is not a user-level error. (If it happens, change the mode to Shipping mode. See the Maintenance Manual.)
10052 Check The Printer	Registration sensor error. This is not a user-level error. (If it happens, change the mode to Shipping mode. See the Maintenance Manual.)
10944 Check The Printer	Adjusting data of LED HEAD is not written in PU FLASH (only when VE LED Head without EEPROM is used)
10945 Check The Printer	
10946 Check The Printer	
10947 Check The Printer	
MP Tray Empty Load Paper in MP Tray	MP tray, or tray1 is empty. Treated as Warning until printing to the empty tray is designated. “MP Tray Empty” is displayed when paper feed from MP tray is attempted, but the tray is empty. When printing of the job is completed, this warning disappears if a user opens/closes the cover or reboots the printer.
Tray1 Empty Load Paper in Tray1	

Error Message	Meaning
40994 Check The Printer	The data of COPY is memory-full.
10982 Check The Printer	Job cancelled because of no permission for printing (Related to JobAccount) Cleared by pressing ON-LINE switch.
30114 Check The Printer	Invalid data was received. Press the On-line switch and eliminate the warning. Displayed when unsupported PDL command is received or a spool command is received without HDD.
411yy Check The Printer	Manual paper feed is required. Manually insert the paper shown by mmm.
480yy Media Mismatch Check The Printer	The media type in the tray does not match the print data. Load mmm/ppp paper in MP Tray, or Tray1.
482yy Media Mismatch Check The Printer	
483yy Media Mismatch Check The Printer	
30993 Check The Printer	Network initializing.
472yy Tray1 Empty Load mmm in Tray1	Printing request is issued to an empty tray1.
470yy MP Tray Empty Load mmm in MP Tray	Paper feed from MPTRAY is attempted, but the tray is empty. Loading mmm paper and pressing the On-line switch will start printing.
30097 Check The Printer	Memory capacity overflows. Press ON-LINE switch so that printing continues. Install expansion RAM or decrease data size.
Y Waste Toner Full Replace Y Toner	* waste toner will fill up the box.Toner replacement is necessary. * = Y, M or C
M Waste Toner Full Replace M Toner	
C Waste Toner Full Replace C Toner	
K Toner Empty Replace K Toner	* toner empty * = K, Y, M or C Warning status takes effect at Cover Open/Close, while allowing printing approx 50 pages (T.B.D). (A4, density 5%).
Y Toner Empty Replace Y Toner	
M Toner Empty Replace M Toner	
C Toner Empty Replace C Toner	
Have You Replaced Y Toner? Yes / No	Displayed to confirm whether the user has replaced the * toner after Cover Open/Close (after Waste Toner Full error). The selection of "Yes" will reset the toner counter while clearing Waste Toner Full error. The selection of "No" will bring the printer to waste toner full warning status.
Have You Replaced M Toner? Yes / No	
Have You Replaced C Toner? Yes / No	

Error Message	Meaning
Paper Size Error Open Front Cover	Inappropriate size paper was fed from a tray. Usually paper is automatically exit out, and error message is displayed. After Cover open and close , error is recovered. If paper is remained in the printer, remove paper and close cover. Open and close the cover to perform recovery printing, and continue.
Paper Jam-MP Tray Open Front Cover	JAM has occurred. MP Tray
Paper Jam-Tray1 Open Front Cover	JAM has occurred. Tray1
Paper Jam-Feed Open Front Cover	JAM has occurred. Feed
Paper Jam-Transport Open Top Cover	JAM has occurred in paper path. Transport
Paper Jam-Exit Open Top Cover	JAM has occurred in paper path. Exit
40980 Check The Printer	Displayed if jam is occurring in Duplex Unit and the Duplex unit is removed. If a user removes the Duplex Unit when jam is not occurring in the Duplex unit, Service Call Error 181 occurs.
K Drum Life Replace K Drum	Drum life. Warning status takes effect at cover open/close. When the printer printed 500 pages, the error occurs again.
Y Drum Life Replace Y Drum	
M Drum Life Replace M Drum	
C Drum Life Replace C Drum	
Fuser Unit Life Replace Fuser	Fuser life. Warning status occurs at cover open/close. When the printer printed 500 pages, the error occurs again.
Belt Unit Life Replace Belt	Belt life. Warning status takes effect at cover open/close. When the printer printed 500 pages, the error occurs again.
Waste Toner Full Replace Belt	Waste toner full. Warning status takes effect at cover open/close. When the printer printed 500 pages, the error occurs again.
40034 Check The Printer	Drum is not correctly installed.
40035 Check The Printer	
40036 Check The Printer	
40033 Check The Printer	Belt is unlocked or black drum is not correctly installed.
40037 Check The Printer	Belt unit is not correctly installed.
40992 Check The Printer	Fuser unit is not correctly installed.
Printer Top Cover Open Close Cover	Cover is open. Top Cover

Error Message	Meaning
Printer Front Cover Open Close Cover	Cover is open. Front Cover
Duplex Cover Open Close Cover	Cover is open. Duplex
40967 Check The Printer	Download mode when download data is received in normal operation. Show download data is receiving.
30027 Check The Printer	A network error is occurring.
40057 Check The Printer	Service Calls.
Copy is Unusable	Color & Mono copy are unusable.
Color Copy is Unusable	Mono copy only
Setting Failed Setup isn't changed	Setup isn't changed
Warning Failed to the Updated	Failed to the Updated
Set Supported Paper	Set Supported Paper
Got Un-support Value Confirm Printer Setting	Confirm Printer Setting
Set Letter Paper	Set Letter Paper
Set A4 Paper	Set A4 Paper
Paper Empty	Paper Empty
Menu Map Printing Failed	Printing Failed
Demo Page Printing Failed	Printing Failed
Job Counting Printing Failed	
Consumable Remaining Printing Failed	
Scan To Log Report Printing Failed	
Printer Error Check The Printer	Check the Printer
Adjust Density Failed	
Adjust Registration Failed	
Printer is OFFLINE Check the Printer	Check the Printer

6.2.10.3 Information Codes During Networking

Error Message	Meaning
Connection failed Check network settings	The connection failed.
Address is invalid Check network settings	The destination address is invalid.
Network is down Check network settings	Network is down.
Network is unreachable Check network settings	Network is unreachable.
Connection aborted by server Check network settings	The connection aborted by the server.
Connection reset by server Check network settings	The connection reset by the server.
Connection time out Check network settings	Connection timed out.
Connection failure Check network settings	The attempt to connect failed.
Host is not able to reach Check network settings	The destination host is not able to reach.
Fail to connect E-mail server Check network environment	Fail to connect Email Server
SMTP Sever is empty Please setup SMTP Server in Admin	Please input IP or domain name for SMTP Server into SMTP server item of network configuration in Admin.
SMTP Server address is Wrong	Please make sure SMTP Server's domain name or IP is correct.
TIFF or MTIFF compression fail	Please select raw data format or select text mode or reduce resolution.
Check DNS server's IP	Please input the IP of DNS server into DNS server item of network configuration in Admin.
Fail to get filing server's IP	Please make sure the filing server's domain name in Target URL is correct and DNS server's IP is correct.
Fail to create socket for DHCP	Reboot the machine, and try again. If the error is still there, contact dealer.
Failed to search DHCP Server	Failed to send DHCP discover packet. Please check network environment. If there is no DHCP Server in your network environment. Please turn off the setup of DHCP, and input Subnet Mask, Gateway IP, and IP on network configuration in Admin key.
Failed to get network setup by DHCP	Failed to get network setting (DHCP Server's IP, Subnet Mask, Gateway IP) from DHCP Server. Please check DHCP Server.
Failed to get IP from DHCP Server	Failed to get IP from DHCP Server. Please check DHCP Server.
Failed to renew IP from DHCP Server	There is no response from DHCP Server after sent a renew IP request. Please check DHCP Server.

6.2.10.4 Error Message During E-Mailing

Error Message	Meaning
Device internal failure Reboot the scanner	Device internal failure
Fail to connect Mail server Contact network administrator	Fail to connect Mail server
Fail to get Mail server response Contact network administrator	Fail to get Mail server response
Unpredicted error Contact network administrator	Unpredicted error
Service unavailable Contact network administrator	Service not available, closing transmission channel. The Server is going to shut down.
No support SMTP Login extension Contact network administrator	Mail server doesn't support SMTP Login extension
No support SMTP Login authentication Contact network administrator	Mail server doesn't support SMTP Login authentication
SMTP Login error Check Login name	SMTP Login user name error
Mailbox unavailable Check “To” address	Requested mail action not taken: mailbox unavailable
Processing error Contact network administrator	Requested action aborted: local error in processing
Insufficient system storage Contact network administrator	Requested action not taken: insufficient system storage
Temporary authentication failure Contact network administrator	Temporary authentication failure: The authentication failed due to a temporary server failure.
Command error Restart Scanner	Syntax error, command unrecognized
Parameter or argument error Check Network Settings	Syntax error in parameters or arguments
Sequence error Restart Scanner	Bad sequence of commands
Command parameters not implemented Check Network Settings	Command parameters not implemented

Error Message	Meaning
Authentication required Contact network administrator	Authentication required: Mail server requires authentication in order to perform the requested action.
Action not taken Check "To" address	Requested action not taken: mailbox name not allowed.
User not local Check “To” address	User not local: please try again.
Exceeded storage Allocation Check “To” address	Requested mail action aborted: exceeded storage allocation
Mailbox name not allowed Check “To” address	Requested action not taken: mailbox name not allowed
Transaction failed Contact network administrator	Transaction failed
Connection error Check network environment	Connection broken during data transmission.
File size is to large	File size is larger then the size that is set in “scan size limit” of menu

6.2.10.5 Error Message During Filing

Error Message	Meaning
Fail to connect FTP server Contact server administrator	Fail to connect FTP server
Unpredicted error Contact server administrator	Unpredicted error
FTP Login error Check Login name	FTP Login name error
FTP Password error Check Password in folder	FTP password incorrect
Can't enter directory Make sure privilege	FTP can't enter this directory
Can't check file Make sure privilege	FTP can't check file existed or not
Can't change data transfer type Contact server administrator	FTP can't change data transfer type
Store file error Make sure privilege	FTP store file error
Insufficient storage space in system Contact server administrator	Insufficient storage space in system
File name not allowed Change file name	File name not allowed
Can’t create directory Make sure privilege	FTP can’t create directory
CIFS Login fail Check ID & Password	CIFS (User level) login fail
Can't make subdirectory Check the account	CIFS (User level) can not make subdirectory
CIFS fail to connect Check server supports CIFS	CIFS fail to connect
Network share name incorrect Check directory in folder	CIFS Network share name incorrect.
Computer name error Make sure computer name in directory	CIFS Computer name error
CIFS dialect negotiation fail Contact server administrator	CIFS dialect negotiation fail
CIFS fail to create file Make sure you have full control privilege	CIFS fail to create file.

Error Message	Meaning
CIFS send data error	CIFS send data error
CIFS fail to access file attribute Make sure you have full control privilege	CIFS fail to access file attribute
HTTP fail to connect Check IP & HTTP port	HTTP fail to connect
HTTP unauthorized Make sure your account has authorization	HTTP Unauthorized
HTTP forbidden This action is forbidden	HTTP Forbidden
MKCOL method not allowed Contact server administrator	HTTP MKCOL method not allowed
MKCOL method not implemented Contact server administrator	HTTP MKCOL method not implemented
HTTP PUT method not allowed Contact server administrator	HTTP PUT method not allowed
HTTP server internal error Contact server administrator	HTTP server internal error
PUT method not implemented Contact system administrator	HTTP PUT method not implemented
HTTP server unavailable Contact server administrator	HTTP server unavailable
HTTP No support That server does not support HTTP	HTTP server does not support HTTP version 1.1
Resource not found Contact server administrator	HTTP Resource not found

7. PREVENTIVE MAINTENANCE

7.1 Cleaning the Document Glass
7.2 Cleaning the ADF
7.3 Clearing a Paper Jam
7.4 Replacing the ADF Pad

This C5510MFP/C5540MFP is designed to be free of maintenance. However, it is suggested to perform preventative maintenance in the shorter term either every 6 months or every 60,000 sheets scanning to ensure a consistently optimum performance.

7.1 Cleaning the Document Glass

There are times when the document cover and document glass is contaminated with ink, toner particles or paper coatings. In this case, the C5510MFP/C5540MFP will have to be cleaned frequently to ensure the best performance.

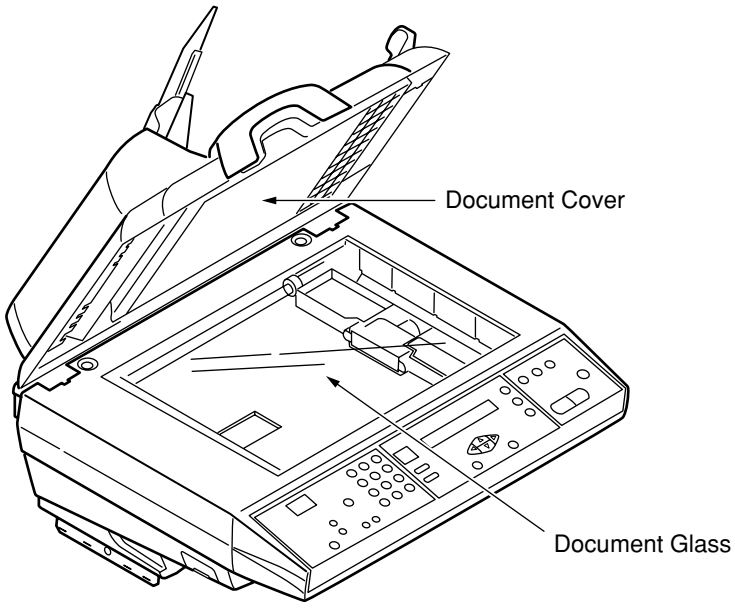
Follow the cleaning procedure as below:

(1) Open the document cover.

(2) Dip a clean cloth with non-corrosion solvent like alcohol (purity above 99.5%).

(3) Wipe the document cover and the document glass gently as shown the following figure. Continue until the entire document cover and document glass are cleaned and observe that no cleanser remains on the surface.

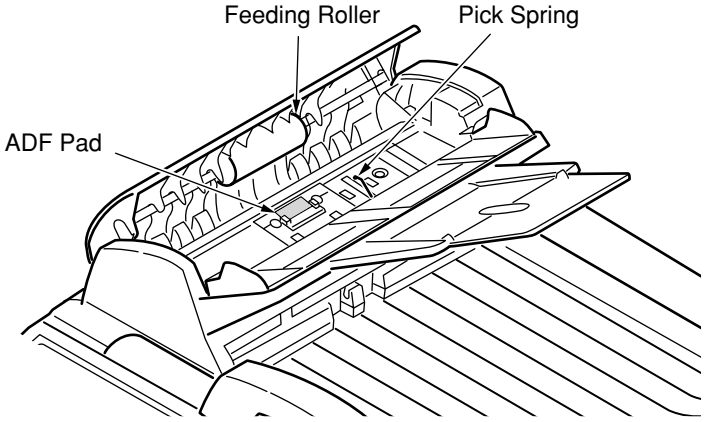
(4) Close the document cover. Your C5510MFP/C5540MFP is now ready for use.



7.2 Cleaning the ADF

From time to time the pad assembly and feeding rollers may become contaminated with ink, toner particles or paper dust. In this case, the machine may not feed documents smoothly. If this occurs please follow the cleaning procedures to return your machine to its original state.

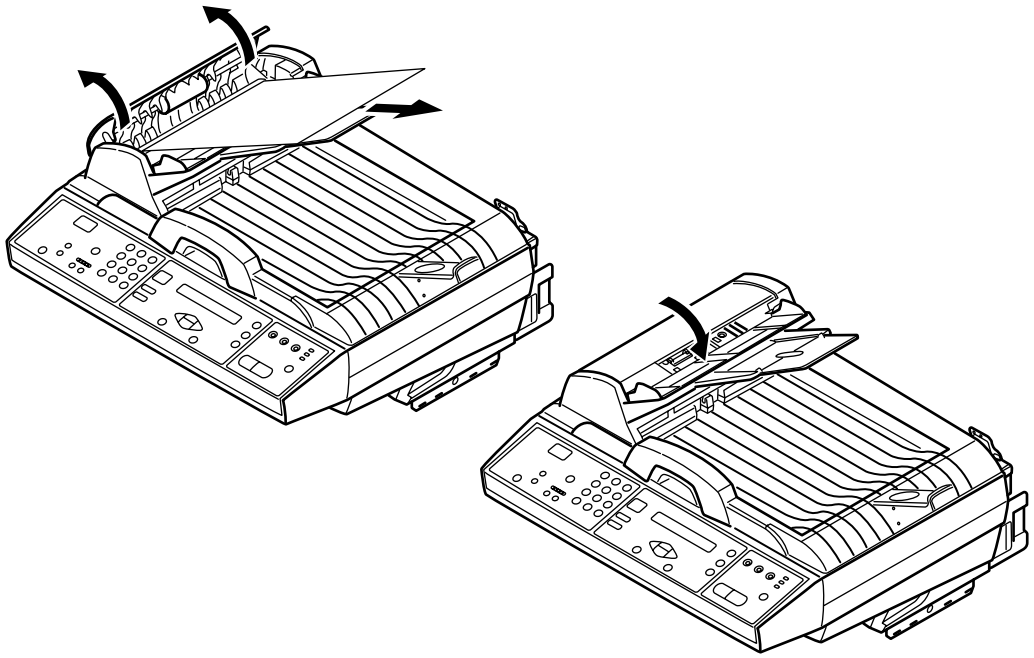
1. Moisten a cotton swab with isoprophyl alcohol (95%).
2. Gently open the ADF front cover. Wipe the feeding rollers by moving the swab from side to side. Rotate the rollers forward with your finger and repeat the above cleaning procedures until the rollers are clean. Be careful not to snag or damage the pick springs.
3. Wipe the pad in the direction from top to bottom. Be careful not to hook the pick springs.
4. Close the ADF unit. Your machine is now ready to use.



7.3 Cleaning the ADF

In the event of a paper jam, follow the procedures below to remove the paper:

1. Gently open the ADF front cover to the left.
2. Carefully pull the paper out of the ADF unit.
3. Close the ADF front cover. Your C5510MFP/C5540MFP is now ready to use.

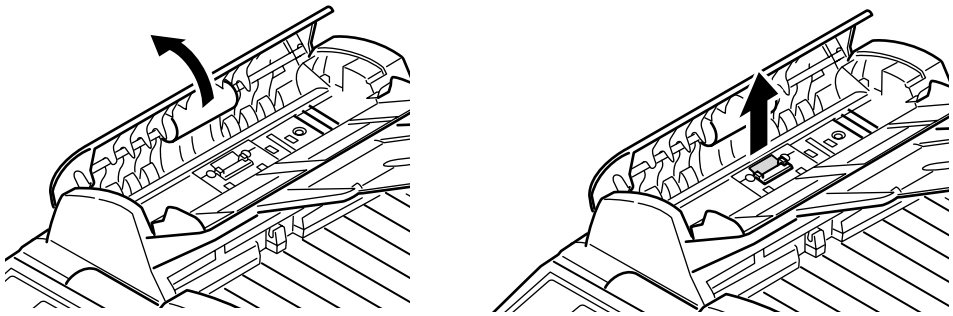


7.4 Replacing the ADF Pad

After scanning approximately 100,000 pages through the ADF, the pad module may be worn out and you may experience problems with document feeding. In this case, it is highly recommended to replace the pad module with a new one. For ordering the pad module, please consult your nearest dealer and follow the procedure below to replace it.

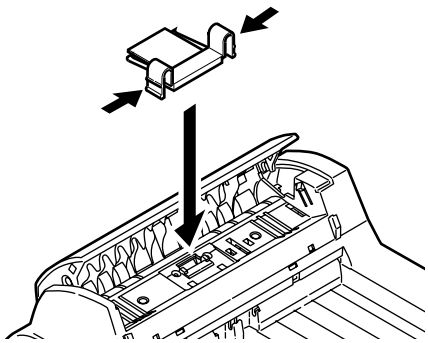
Disassembling Procedure

1. Pull the Paper Jam Release button.
2. Open the ADF front cover to the left.
3. Press both sides of the ADF snap-in pad module inwardly with your fingers to pull out the ADF snap-in pad module.



Assembling Procedure

1. Take out the ADF pad module from the box.
2. Press both arms of the ADF pad module inwardly with your two fingers.
3. Place it into the holes until it snaps into place.



8. DISASSEMBLY

8.1 Part replacement precaution
8.2 Part replacement procedure

8.1 Part replacement

This section provides on-site replacement procedures of parts, assemblies and units. The replacement procedures describe the removal procedures. Installation shall be performed in the reverse order of removal.

The parts numbers used in this manual (e.g., (1) and (2)) are different from the numbers used in the corresponding Disassembly for Maintenance block diagrams (42897301TL) and RSPL(42897301TR).

8.1.1 Part replacement precaution

(1) Be sure to disconnect the AC cord and the interface cable before replacing a part.

(a) The AC cord shall be disconnected in the following order:

① Turn off "○" the power switch of the scanner.

② Remove the AC plug of the AC cord from the AC outlet.

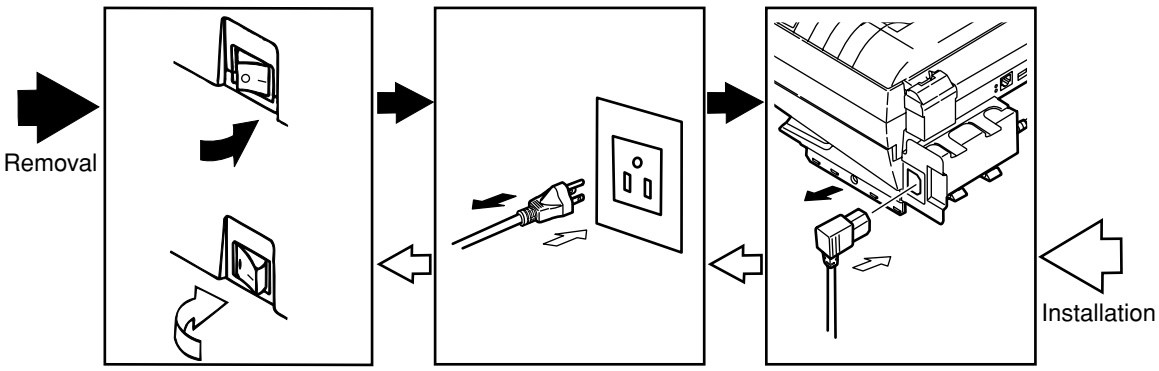
③ Disconnect the AC cord and the interface cable from the scanner.

(b) The cord and cable shall be connected to the scanner in the following order:

① Connect the AC cord and the interface cable to the scanner.

② Insert the AC plug into the AC outlet.

③ Turn on "｜" the power switch of the scanner.



(2) Do not disassemble the scanner if it is working properly.

(3) Do not disassemble the scanner more than necessary. Do not remove any other parts not specified in the part replacement procedures.

(4) Use the specified maintenance tools.

(5) Disassembling shall be performed in the specified order. Otherwise, the parts might be damaged.

(6) Inorder to avoid losing small parts such as screws and collars, temporarily fasten them back in place.

(7) When handling ICs or printed circuit boards, such as the microprocessor, ROM, and RAM, do not wear gloves likely to cause static electricity.

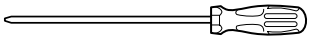
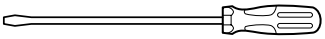
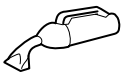
(8) Do not place printed circuit boards directly on the machine or on the floor.

(9) Part replacement shall be performed in a neat, tidy and clean place.

[Maintenance tools]

Table 8-1-1-1 shows tools required for replacement of printed circuit boards and units.

Table 8-1-1-1 maintenance tools

No.	Maintenance tools		Quantity	Intended use	Remarks
1		No.2-200 magnetic screwdriver	1	3 to 5 mm screw	
2		No.3-100 screwdriver	1		
3		No.5-200 screwdriver	1		
4		Handy vacuum cleaner	1		

8.2 Part replacement procedure

This section provides replacement procedures of the parts and assemblies shown in the disassembly system diagram below.

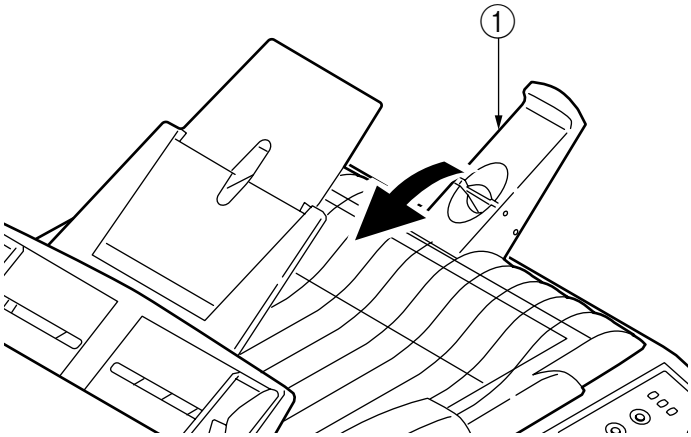
[Disassembly system diagram]

			Remarks
Scanner	1 ADF Unit	1 ASS'Y. ADF DOCUMENT	
		2 ASS'Y. PAPER SUPPORT	
		3 ASS'Y. PAPER TRAY	
		4 ASS'Y. HINGE. LIGHT	
		5 ASS'Y. HINGE. HEAVY	
		6 ASS'Y. PAD	
		7 ASS'Y. STOPPER	
	2 FLATBED Unit	1 ASS'Y. FLATBED UNIT	
		2 ASS'Y. CONTROL PANEL-OEL	OEL/AOS
		ASS'Y. CONTROL PANEL-ODA	ODA
		3 ASS'Y. MAIN BOARD-OEL	For C5510 OEL /SKU1
		ASS'Y. MAIN BOARD-ODA	For C5510 ODA
		ASS'Y. MAIN BOARD-OEL	For C5510 OEL/SKU2
		ASS'Y. MAIN BOARD-AOS	For C5510 AOS
		ASS'Y. MAIN BOARD-OEL	For C5540 OEL /SKU1
		ASS'Y. MAIN BOARD-ODA	For C5540 ODA
		ASS'Y. MAIN BOARD-OEL	For C5540 OEL/SKU2
		ASSY. MAIN BOARD-AOS	For C5540 AOS
	3 HOLDER ADAPTOR		
	4 Stand Unit	1 ASS'Y. STAND-R	
		2 ASS'Y. STAND-L(with lock cover)	

8.2.1 ADF unit

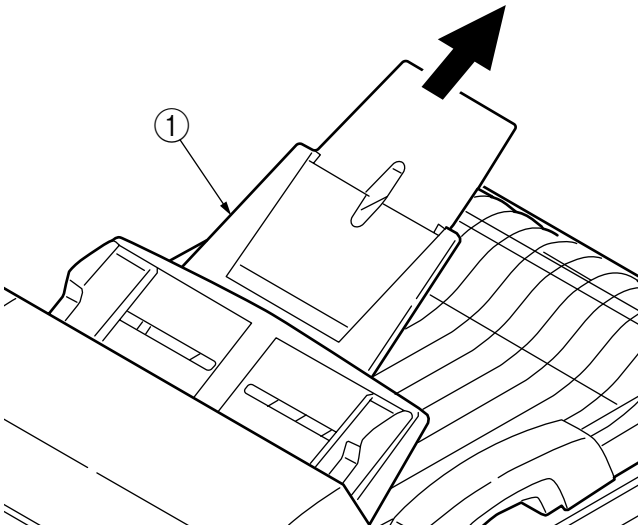
8.2.1.1 ASS'Y STOPPER

(1) Slide the ASS'Y STOPPER ① in the arrow direction and remove it.



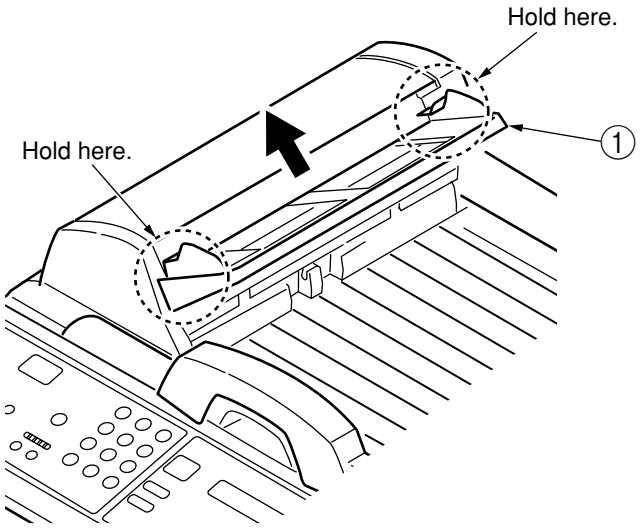
8.2.1.2 ASS'Y PAPER SUPPORT

(1) Pull the ASS'Y PAPER SUPPORT ① in the arrow direction and remove it.



8.2.1.3 ASS'Y PAPER TRAY

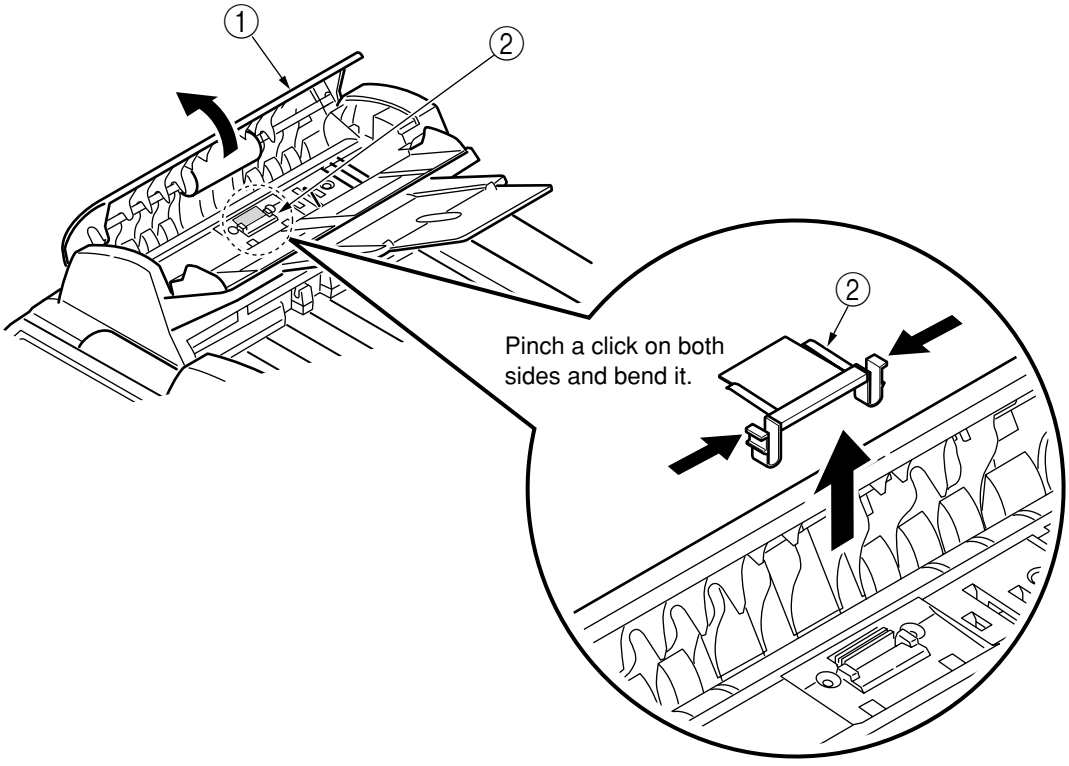
(1) Hold the both sides of the ASS'Y PAPER TRAY ① tightly. While keeping the both sides on a level, lift up the ASS'Y PAPER TRAY in the arrow direction and remove it.



8.2.1.4 ASS'Y PAD

(1) Raise the center of the ADF front cover ① in the arrow direction and open the ADF front cover ①.

(2) Pinch the clicks on both sides of the ASS'Y PAD ② with your fingers. While bending the clicks, pull up the pad.



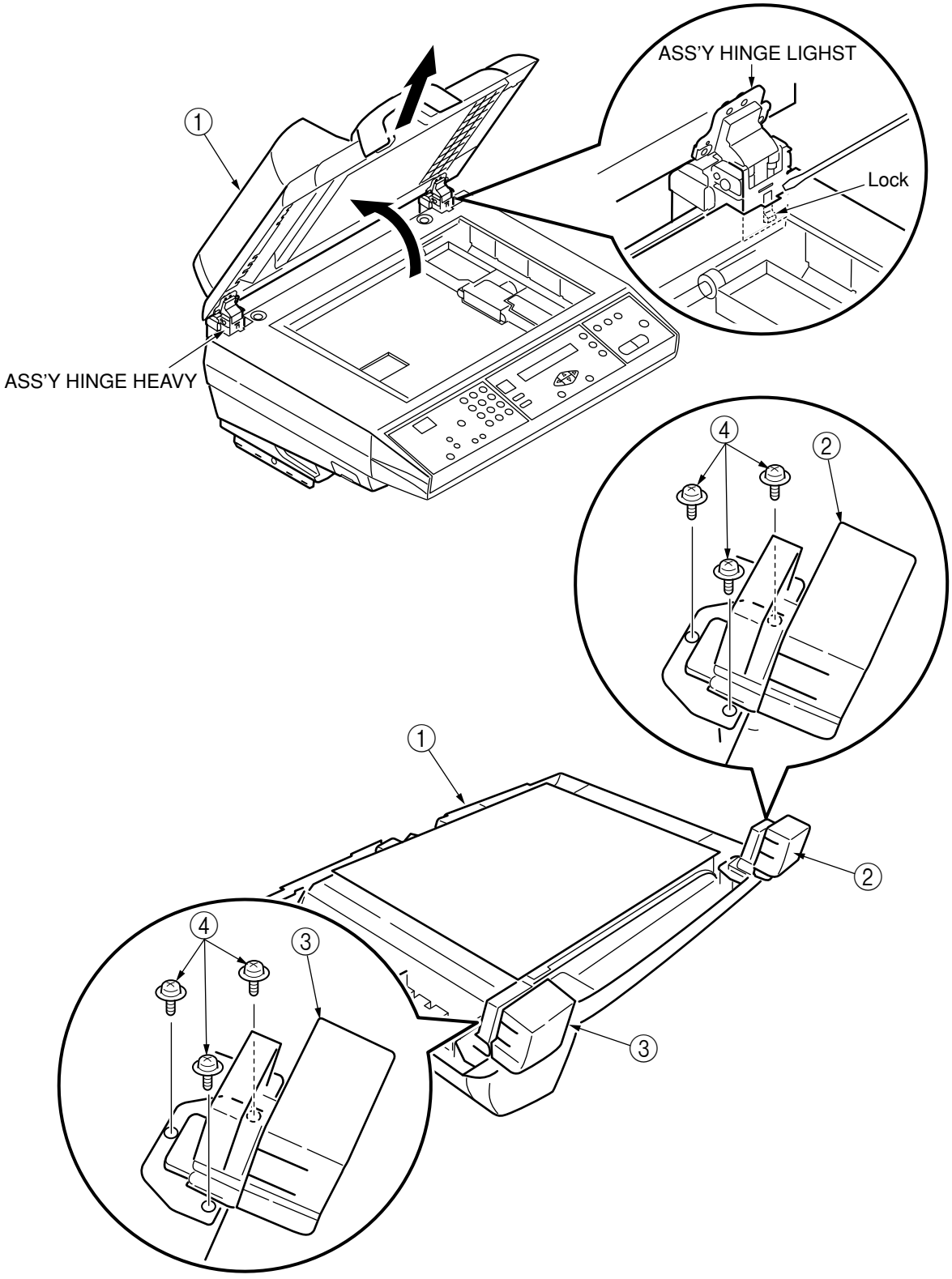
8.2.1.5 ASS'Y HINGE LIGHT/HEAVY

(1) Open the ADF unit ①.

(2) While pulling up the ADF unit ①, release the lock of the ASS'Y HINGE LIGHT ②, inserting a slot screwdriver into the notch as shown in the figure. Pull up the ADF unit ① further.

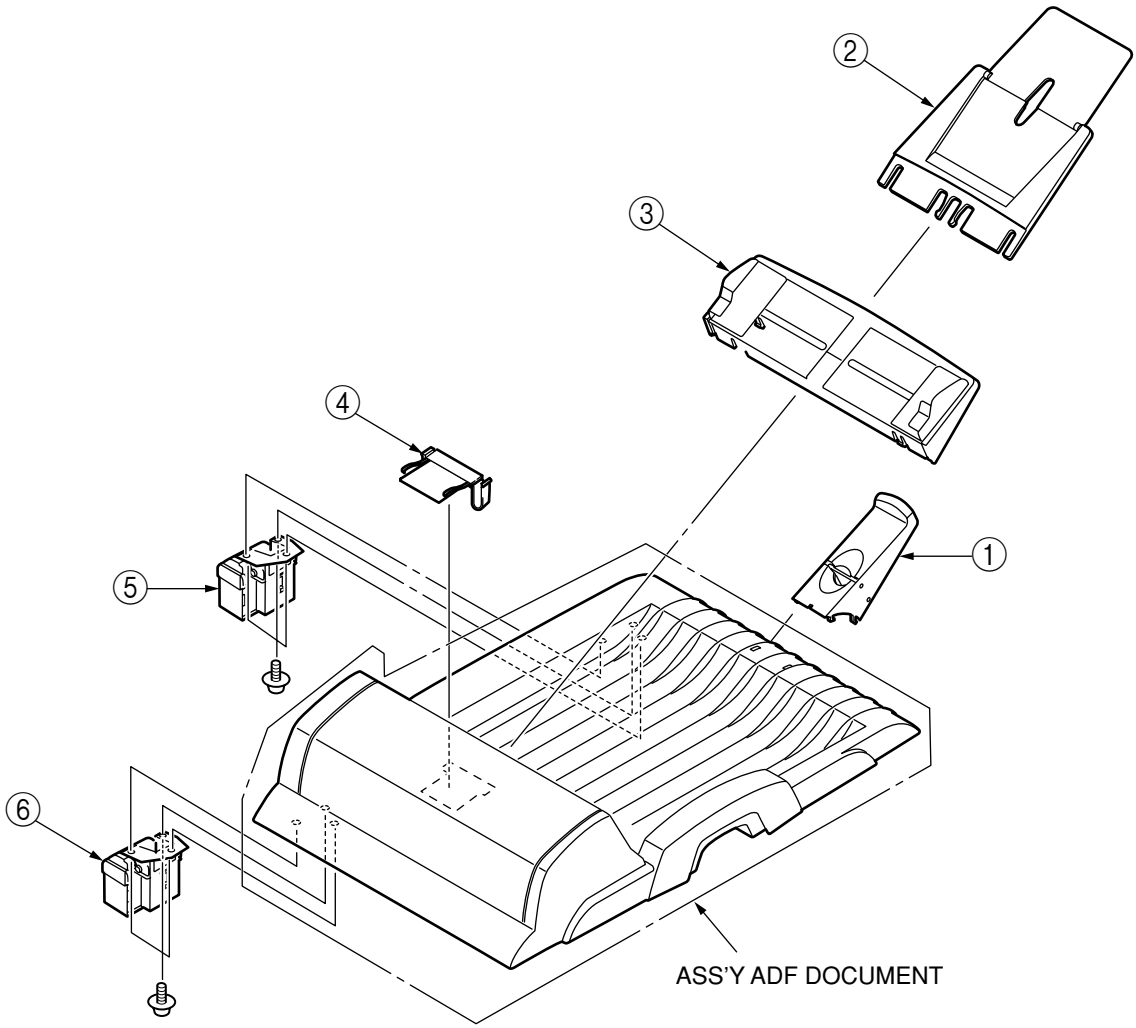
(3) Release the ASS'Y HINGE HEAVY ③ in the same way, pull up the ADF unit ① and remove it.

(4) Remove the six screws ④ and remove the ASS'Y HINGE LIGHT ② and the ASS'Y HINGE HEAVY③.



8.2.1.6 ASS'Y ADF DOCUMENT

(1) While referring to sections 8.2.1.1 to 8.2.1.5, remove the ASS'Y STOPPER ①, the ASS'Y PAPER SUPPORT②, the ASS'Y PAPER TRAY ③, the ASS'Y PAD ④, the ASS'Y HINGE LIGHT ⑤ and the ASS'Y HINGE HEAVY ⑥.



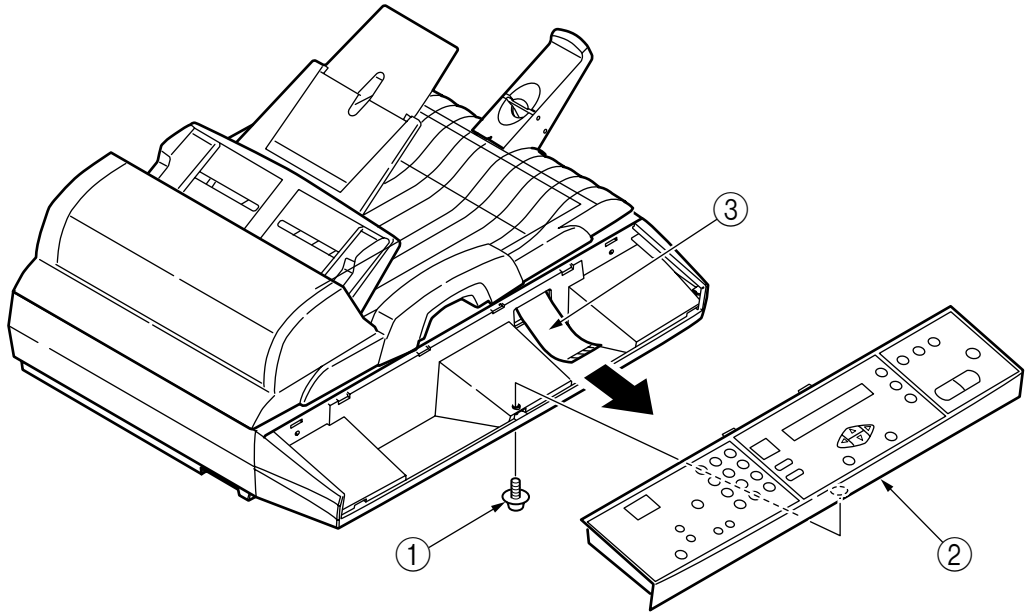
8.2.2 Flatbed unit

8.2.2.1 ASS'Y CONTROL PANEL

(1) Remove the screw ① underneath the operation spring.

(2) Slide the ASS'Y CONTROL PANEL ② towards you and remove it.

(3) Disconnect the cable ③.



8.2.2.2 ASS'Y MAIN BOAED

(1) Open the ADF unit ①.

(2) While pulling up the ADF unit ①, release the lock of the ASS'Y HIGE LIGHT ② and the ASS'Y HIGE HEAVY ③ by inserting a slot screwdriver in the notch as shown in Figure 2. Pull up the ADF unit ① and remove it.

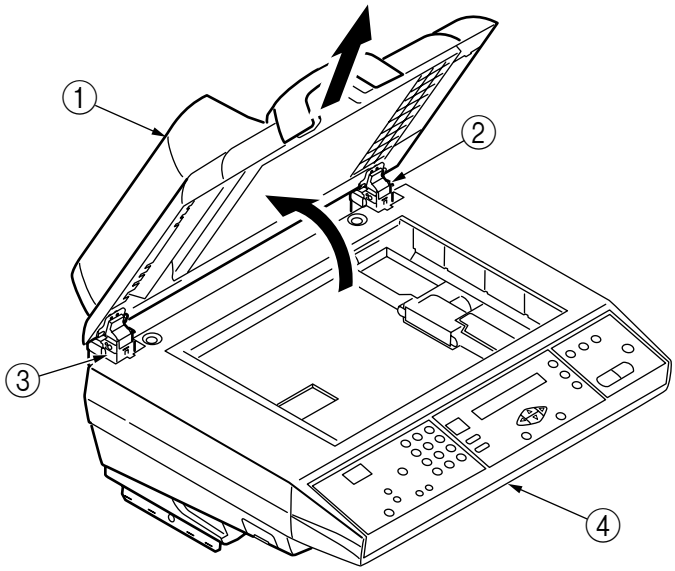


Figure 1

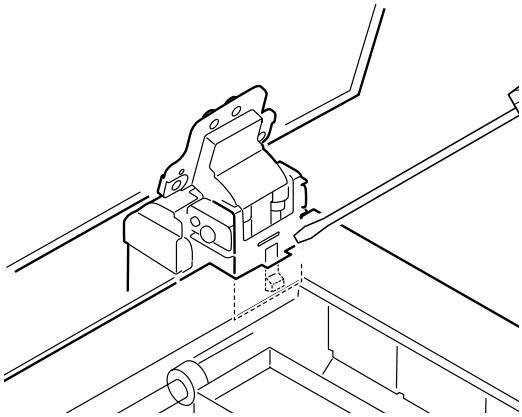


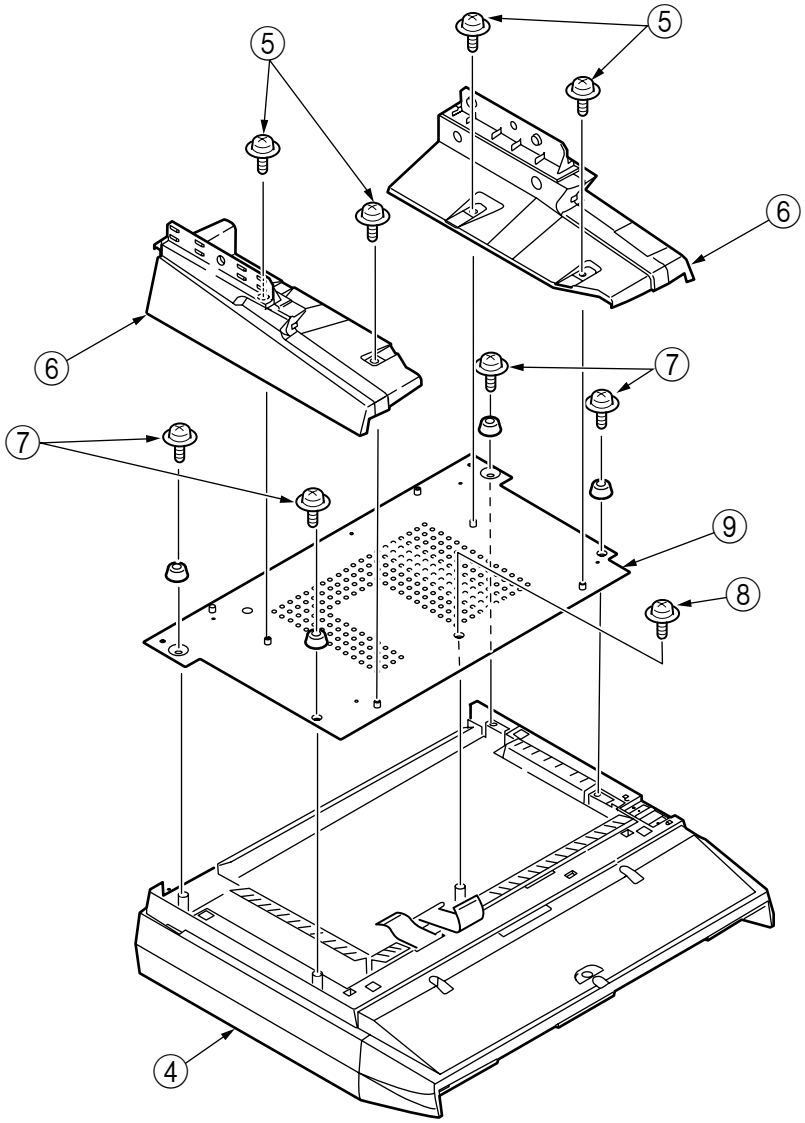
Figure 2

(3) Turn over the flatbed unit ④.

(4) Remove the four screws ⑤ and remove the stand unit ⑥.

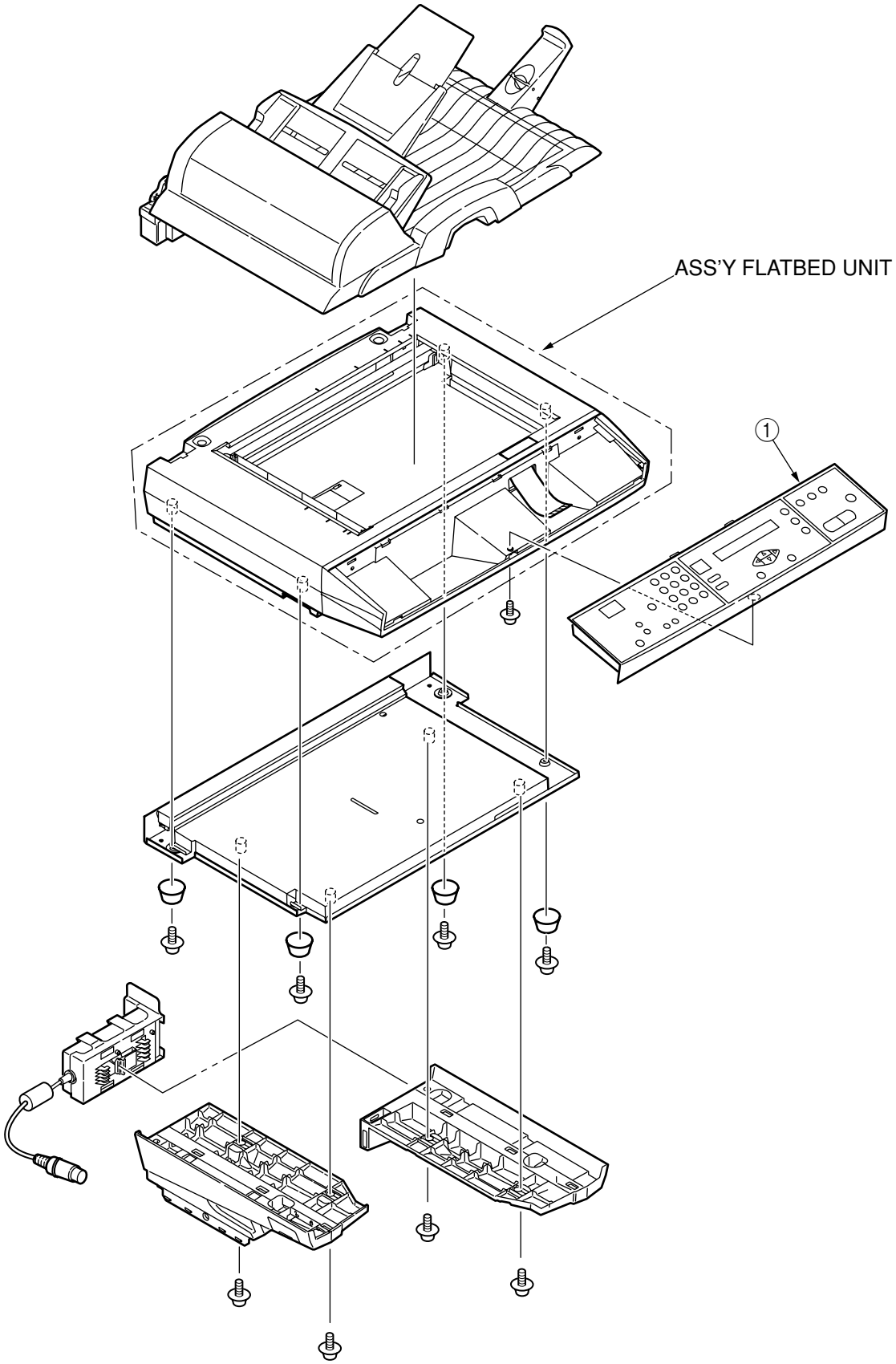
(5) Remove the four screws ⑦ with the rubber feet.

(6) Remove the screw ⑧ and open the ASS'Y MAIN BOARD ⑨. Disconnect all the connectors and remove the ASS'Y MAIN BOARD ⑨.



8.2.2.3 ASS'Y FLATBED UNIT

(1) While referring to sections 8.2.2.1 to 8.2.2.2, remove the ASS'Y CONTROL PANEL ① and the ASS'Y MAIN BOARD ②.



8.2.3 Holder adapter

(1) Pull out the connector ② of the AC adapter ① from the scanner.

(2) Bend the clew A of the holder ③ and remove the AC adapter ① from the holder ③. (Figure 2)

(3) Pull the clew B of the holder ③ to release the lock. Slide the holder ③ to the right and remove it. (Figure 3)

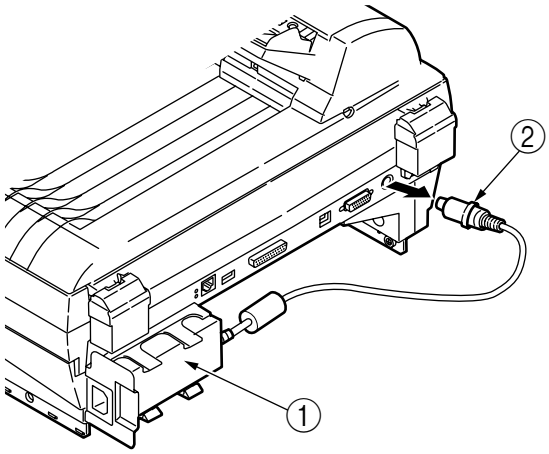


Figure 1

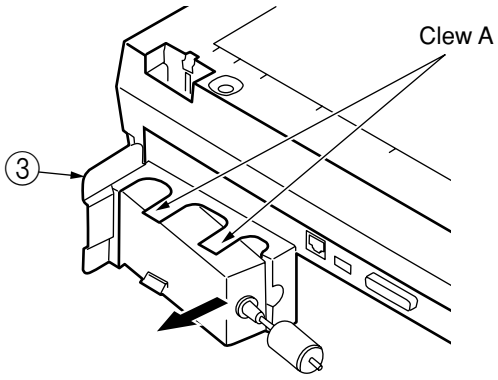


Figure 2

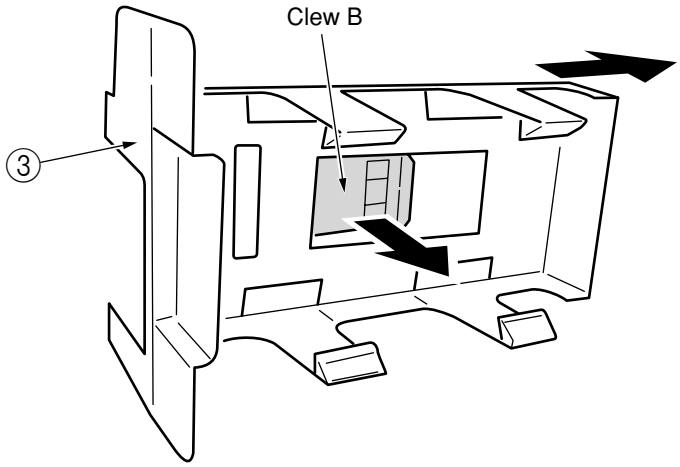


Figure 3

8.2.4 Stand unit

8.2.4.1 ASS'Y STAND- R

(1) Open the ADF unit ①.

(2) While pulling up the ADF unit ①, release the lock of the ASS'Y HINGE LIGHT ② and the ASS'Y HINGE HEAVY ③ by inserting a slot screwdriver in the notch as shown in Figure 2. Pull up the ADF unit ① and remove it.

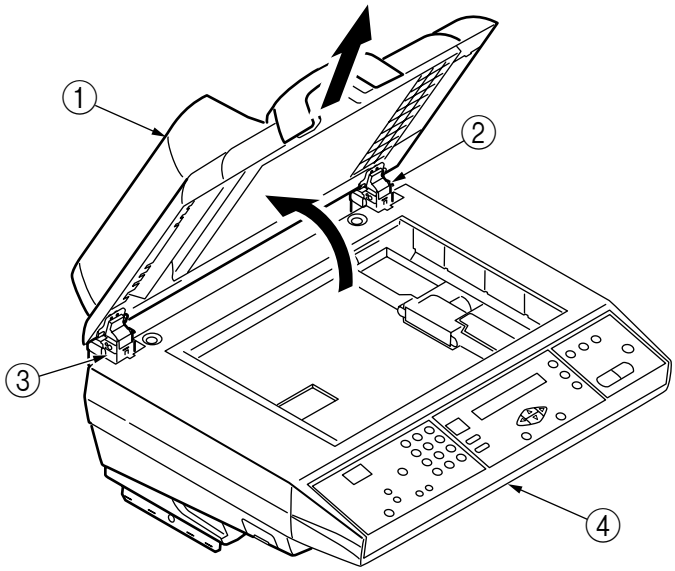


Figure 1

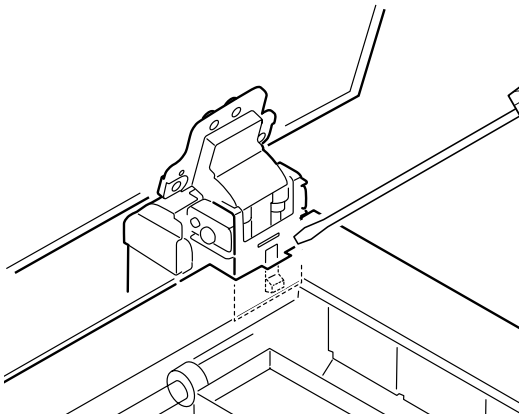
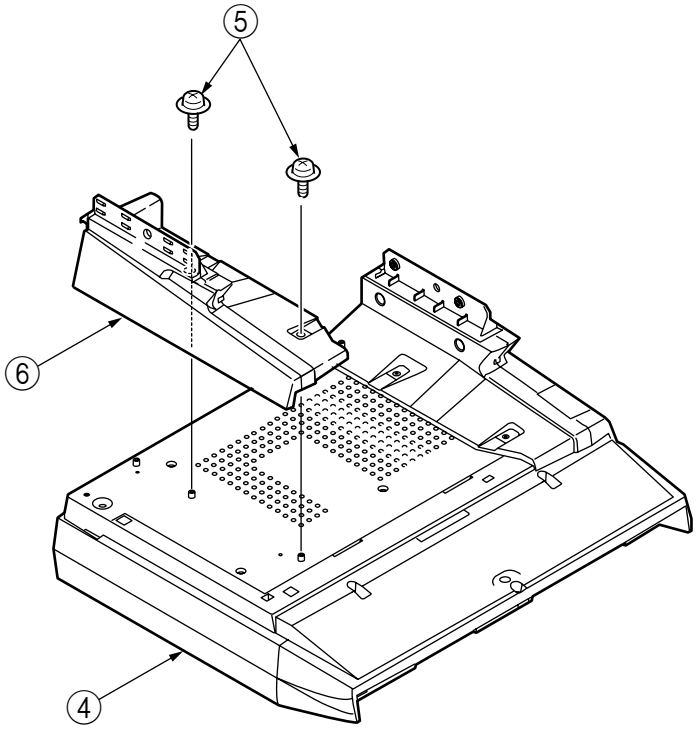


Figure 2

(3) Turn over the flatbed unit ④.

(4) Remove the two screws ⑤ and remove the ASS'Y STAND- R ⑥.



8.2..2 ASS'Y STAND- L (with lock cover)

(1) Open the ADF unit ①.

(2) While pulling up the ADF unit ①, release the lock of the ASS'Y HINGE LIGHT ② and the ASS'Y HINGE HEAVY③ by inserting a slot screwdriver in the notch as shown in Figure 2. Pull up the ADF unit ① and remove it.

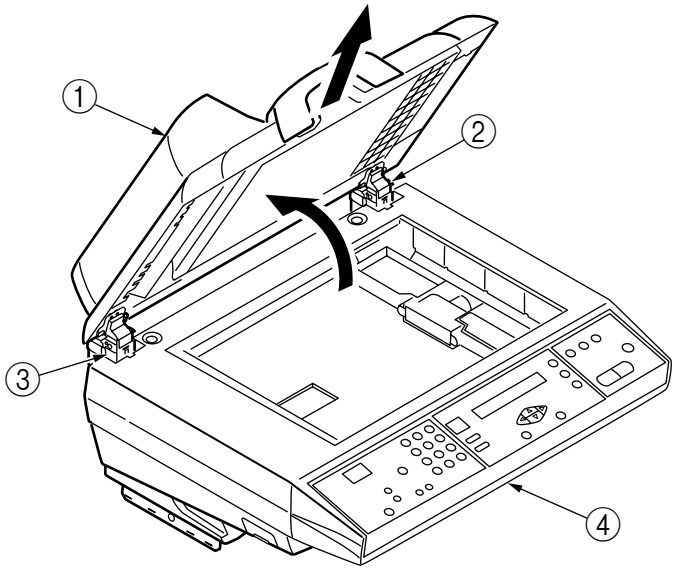


Figure 1

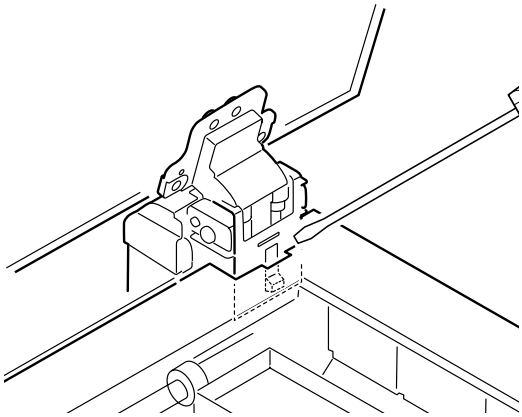
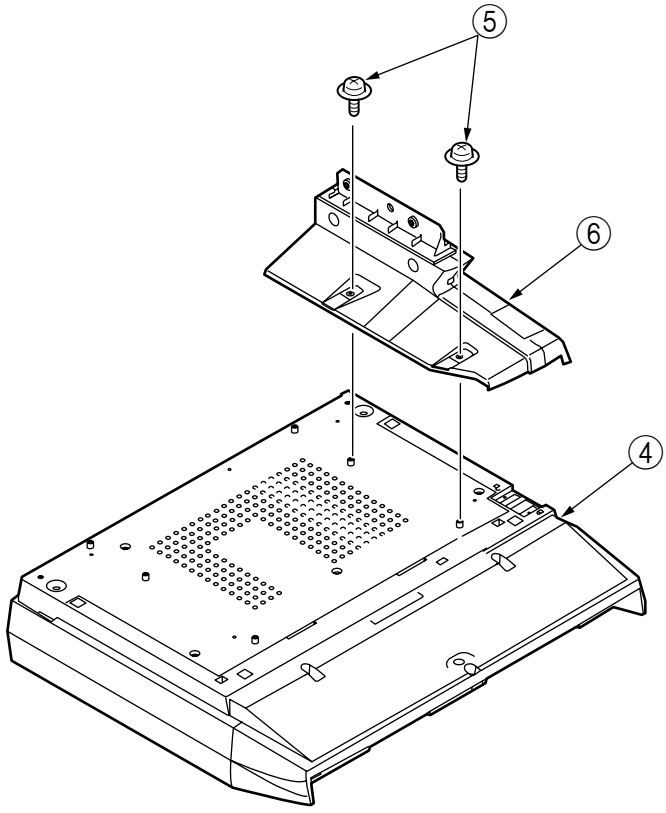


Figure 2

(3) Turn over the flatbed unit ④.

(4) Remove the two screws ⑤ and remove the ASS'Y STAND- L ⑥.



9. PARTS

9.1 Miscellaneous Spare Parts